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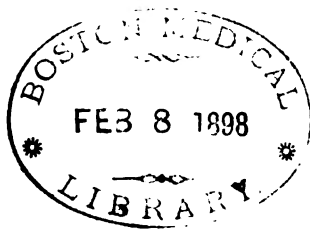
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D. W. YANDELL, M. D., AND H. A. COTTELL, M. D., EDITORS.

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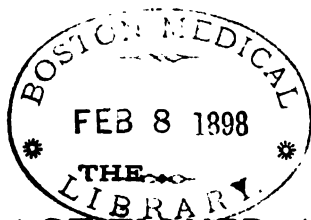
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AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÀ."

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No. 1.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

TUBERCULOUS EPIDIDYMITIS, WITH REPORT OF A CASE.*

BY W. O. ROBERTS, M. D.

Professor of Principles and Practice of Surgery, University of Louisville.

August 25, 1896, I saw, with Dr. Stucky, Mr. L. B., who presented the following history: He was twenty years of age and by occupation a clerk in a railroad office; his mother died of cancer of the breast; father still living, about fifty-eight years old, and, while strong and healthy himself, several of his family died of consumption. The patient is the youngest of five children; two brothers and one sister are living and in good health; one brother, twenty-four years of age, died recently of pneumonia.

Mr. B. had been well and strong until the early part of last June, when he began suffering from an epididymitis of the left side. He had never had any venereal disease, nor could he remember of any injury. That testicle had always been much larger than the other. About two years ago it swelled considerably, and was quite painful, but by the use of a suspensory bandage and frequently bathing it with cold water the symptoms gradually subsided, but he was never comfortable afterward without the bandage.

The early part of June last the swelling, pain, and tenderness returned, and, failing to relieve it with the water as before, he consulted Dr. Stucky. A few days before our consultation an abscess formed and

* Read before the Louisville Medico-Chirurgical Society, Oct. 31, 1896. For discussion see page 8.

was opened by the doctor. When I saw him the epididymis was about as large as my thumb, very hard and adherent to the scrotum, in which there was a fistulous opening. The testicle proper was not affected; the epididymis of the right side seemed to be somewhat indurated but was not at all sensitive; no trouble could be detected in the prostate or seminal vesicle. He had never noticed any discharges from the urethra, but there was frequently pain near the glans penis on micturition, or rather just before the urine began to flow, and often the urine was very slow in starting. His general health was beginning to let down. Dr. Stucky had diagnosticated the case as one of tubercular epididymitis and advised castration. I concurred in this opinion, and the following morning we did the operation at the infirmary.

The disease seemed confined to the epididymis; no deposit was detected in the testicle proper, and the vas at the point of ligature appeared healthy. The portion of scrotum which was adherent was removed with the organ. We failed to get primary union of the wound, but cicatrization was complete at the end of four weeks. Two weeks after the operation the epididymis of the right side began to get larger and harder and gave him some discomfort. As it continued to grow worse I advised its removal four weeks ago. At that time it was as large as my finger and gave evidence of suppuration. A very careful examination failed to discover any trouble with the prostate or seminal vesicles, and no discharge from the urethra; there was, however, still pain near the end of the penis just before the urine would start. This did not occur before every act of micturition, but nearly always when he first emptied his bladder in the morning, and it was at this time that he also had some difficulty in starting the flow. When the right testicle was removed the condition of things, barring the condition of the scrotum, was about the same as that of the left side.

The wound of the second operation healed by first intention throughout nearly its entire length. He was kept in bed, however, ten days, and during the following week he loafed about the house. He has been at work since Monday last, and his general condition is one hundred per cent better than it was just before the first operation. The symptoms referable to micturition, that is, the pain and the delay in the act, have entirely disappeared, and he says he feels perfectly well.

One week after the last testicle was removed he had a nocturnal emission; but when I met him yesterday on the street he told me that while he had had no more emissions he had had many erections and had

lost none of his desire for sexual intercourse. While I did not tell him, I believe it will not be a great while until he will be a "dead cock in the pit."

There is a diversity of opinion among authors as to whether or not uro-genital tuberculosis ever begins in the epididymis. Some believe it always starts in the prostate and then passes to the seminal vesicles and then to the epididymis, and others that it starts in the epididymis and travels the other way; others that it may begin at either of those points, but more frequently at the epididymis. Occasionally it starts in the testicle itself. J. William White and Furness give as a reason for the origin of the disease at the epididymis, that the spermatic artery divides at the epididymis and the slowing of the blood current favors bacterial growth.

As to the question of direct infection Verneuil strongly defends the theory, as do also White and Furness. Reclus opposes it, and Jacobson, while considering the question an open one, is inclined to agree with Reclus. He says if the theory were correct tubercular disease of the sexual organs would be more common than it is. White and Furness say tubercular disease is far more frequent than was supposed until quite recently.

"As each year increases our knowledge of the uro-genital forms of tuberculosis a constantly increasing number of cases of testicular disease fall within that category. They certainly do not seem to be so infrequent as to weaken materially the theory of possible direct infection. It is of course certain that many men exposed to this danger escape, just as many escape infection with the gonococcus, or with the virus of syphilis, while others after intercourse with the same woman are infected."

As to treatment by castration there is naturally a difference of opinion, but the weight of authority is strongly in favor of the operation. Reclus holds that tuberculous disease of the testicle is a grave source of danger, and castration ought to be performed early. Keyes, on the other hand, says "that the danger of general infection is not very great, and that castration should not be performed till the testicle is absolutely disorganized. Especially is this rule to be followed when the disease is bilateral; when it is unilateral the operation is allowable for less serious disease."

White and Furness, where the disease is confined to separate small nodules or foci of caseation, practice incision and vigorous scraping, and

then packing with iodoform gauze. In more advanced cases nothing in their opinion is worth considering but castration. When both testicles are badly diseased castration offers the only possible chance of cure. Lanceveaux and others who believe the disease originates in the prostate claim that castration does no good whatever. Morrow says: "Surgical measures should be held as a last resort. In the present state of aseptic surgery castration, even when unilateral, is rarely necessary. The high importance to man's intellectual and moral state of keeping at least a small share of testicular substance in physiological connection with the circulation and cerebro-spinal centers, the suspicion that the opposite organ or prostate is already implicated, the strong doubt, almost amounting to a conviction, that the disease is never primary upon the part of most experienced observers, that castration does not have an appreciable influence on the progress of the disease toward a general infection, should make us hesitate long before removing even one of these organs which have so striking an influence on general nutritive processes. The chances of adolescence, the wonderful recuperative power of these glands, and the now well-demonstrated efficacy of removal of tuberculous foci without serious damage to remaining healthy portions, leaves only a small number of cases to demand castration. When tubercular nodules remain latent in the testis, especially in those cases where there are evidences of coincident prostatic tuberculosis, they can be safely let alone. If they take on activity that even threatens trouble, the organ can be incised, the tubercular areas curetted, cauterized, washed out freely and dusted with iodoform, and the wound closed with or without drainage, and just as good results obtained as where the whole organ is removed. It is quite astonishing how large a part of the testicle can be removed in this way without damaging that which is left behind, and so long as even a small portion of the glandular tissue is left in connection with the nervous system *potentia coeundi* remains to the patient even if sterility from azoöspersism results. Entire excision of the epididymis may be done in this way with only a minimum damage to the individual. Moreover the method has the advantage of being applicable to both testicles at the same time if conditions require it."

In an article on Operative Treatment of Tuberculous Epididymitis, in the *Quenu Gaz. med. de Paris*, the author thinks that castration should be considered with discretion, for a testicle which is left has not only a moral value, but there is good reason to suppose that although deprived

of excretory passages, it continues to exercise upon the general nervous system a considerable influence, the more so because after the total destruction of the epididymis by the curette the testicle keeps its normal volume and consistency. The author usually follows this procedure: An incision three or four centimeters in length opens the tuberculous space; with two forceps (Kocher's) the lips of the opening are seized and a thorough curettement of the little tuberculous cavern is made. The surface only of the cavity is touched with a ten-per-cent solution of chloride of zinc, and, if the cavity is very small, there need be no hesitation in making a primitive union with deep and superficial catgut sutures. If the space is very large no deep sutures are placed, but the cavity is packed with iodoform gauze. The author has practiced this method of curettement in all cases where the nuclei did not seem to be disintegrated.

LOUISVILLE.

A SERIES OF FALLS OCCURRING DURING THE CONSTRUCTION OF ONE BUILDING.

BY EWING MARSHALL, M. D.

Member Board Pension Surgeons; Physician in charge P. E. Orphan Asylum, etc.

Wm. Berry, May 11, 1896, age twenty-seven, married, colored, fell twenty-eight feet, from second floor to the cellar, passing between the iron supports for the first floor and striking a board that was in the cellar. Never lost consciousness, but was found by me in a hysterical condition. Could find no bone injury, and brain and cord gave no evidence at first examination or subsequently of any serious effect. The principal trouble was injury to right kidney. There was considerable tenderness over the right kidney, and for thirty-six hours he passed bloody urine—at first quite marked, but it gradually cleared, and in two weeks the man was able to return to work.

Thomas Warren, white, age twenty-three, single, June 5, 1896, fell the same distance as the above, but received more serious injuries. Broke three ribs, right side; severe abrasion about face and legs, and marked brain injury. No superficial fracture was discovered, but slight hemorrhage from the nose, more in the form of oozing, made me suspect a fracture at the base. No hemorrhage from ears and no paralysis other than pupil and sphincters. The pupils were widely dilated,

slightly irregular in contour, and totally inactive to light. The urine and feces were voided in bed a number of times apparently without the knowledge of the patient. Pulse rather full, but not very rapid. Respiration regular in every respect, except a little superficial on account of injury to right side. Never spit any blood or had any cough. He lay in a semi-stupor for a week, from which, after the second day, he could with some little difficulty be aroused, but he was entirely irrational. He somewhat came to himself, as he put it, on the tenth day after the accident, but he continued to act queer for at least two weeks longer. Four weeks after the accident, convalescence being well under way, it was discovered by him that he could not see as well as before he was injured. Dr. S. G. Dabney was called in consultation, and at first was undecided whether the diminished sight was result of injury to nerve tract by irritation from a fracture or hemorrhage into that region of the brain, or was simply the effect of the general weakness. The sight steadily improved, and is to-day practically as good as before accident. Dr. Dabney, upon learning of this improvement, decided eye trouble was due to anemia. The man made a statement to me on July 11, 1896, that he felt perfectly well, and he was put to work on July 13, 1896, and has worked steadily ever since.

Wm. Graten, white, age twenty-six, single, was the head riveter. He fell during first week of May, 1896, about twelve feet, carrying down his hammer and the plank on which he was standing, but he sustained no serious injury as he fell on a pile of sand, from which he arose, picked up his plank and hammer, ascended a ladder and went on with his work as if nothing had happened.

On June 18, 1896, he had a second fall, tumbling from the fourth floor through to the cellar, striking a flimsy ladder which was broken to pieces. The cellar is twelve feet, the first floor sixteen feet, and two floors above it are each ten feet, so that he fell a distance a little short of forty-eight feet, as he landed finally on some sand. He was not unconscious a minute. He was perfectly at himself, and would have risen but that his pains on making any effort forced him to remain quiet. His injuries were lacerated chin, fracture of the left ulna about three inches above the wrist, one rib broken in left side, severe contusion of right ankle, and some minor cuts on legs. He was declared able to return to work on the 20th of July. I have said nothing about the medical and surgical care of these cases in detail, preferring simply to mention a few facts. A tight, broad binder was used in caring for the

chest injuries in both cases. Sedatives and counter-irritants were used when needed, and the iodide of potash was given for some time to Thomas Warren.

LOUISVILLE.

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Friday, October 31, 1896, Dr. S. G. Dabney, President, in the chair.

Exhibition of Pathological Specimens. Dr. T. S. Bullock: These pieces of cranial bones were removed from a child injured by falling out of a second-story window. The only points of interest in the case are the amount of bone removed, and the fact that the middle meningeal artery was lacerated. In spite of the injury the child lived twelve hours. We anesthetized the child and removed the fragments of bone, but could find no bleeding point, and relied upon gauze to control hemorrhage. A great deal of blood had been lost prior to the operation.

Dr. A. M. Cartledge: Wounds of the middle meningeal artery are of considerable interest. Up to 1881 one hundred cases had been reported. I showed to this society several years ago a typical case in which I trephined. The diagnosis was easy. The child fell into an excavation and struck the head against a piece of granite. Although stunned by the fall the child got up and out of the excavation and subsequently became unconscious. The pressure was such that there was very little external hemorrhage, but the moment the trephine was placed and the bone raised there was furious hemorrhage. The child recovered. The history of these cases is that they all die if left without operation. I should think Dr. Bullock's case was an unfavorable one, judging from the amount of bone removed, and that the injury to the brain must have been extensive. The previous loss of blood also may have contributed to the fatal result. The case I mentioned was a favorable one, owing to the small amount of bone, which it was necessary to remove, and I operated upon him an hour after the accident occurred.

The essay was read by Prof. W. O. Roberts, M. D.; subject, "Tuberculous Epididymitis." [See page 1.]

Discussion. Dr. Cartledge: The subject is an interesting one and one to which I have paid much attention. I have had two cases of double castration for tubercular disease of the epididymis recently. My opinion is that tuberculosis of the epididymis is usually secondary to disease about the prostate gland. Until recently I thought that in the majority of cases the disease was primary of the epididymis. Two years ago I was called out into the State to see the son of a physician that was suffering in a vague way with pain about the rectum and peritoneum, slight fever, night-sweats, etc. On examination of the rectum I found fullness about the prostate. I had him anesthetized and opened a prostatic abscess through the rectum. He improved for a short time only, and after about three weeks I opened the prostatic abscess still further, and he apparently recovered. Two years afterward he came to see me with a typical tubercular testicle, which had become secondarily infected, had formed adhesions, and was discharging. The cord was thickened. I advised castration, which he accepted. That was last fall. Now this young man comes back in June of this year with the other testicle in a similar condition. I advised castration, which he accepted, and I have a letter saying that he is gaining in flesh. There is hardly a doubt the disease of the testicle here was secondary to a similar trouble in the prostate. Dr. Bullock knows of a case of tubercular disease of both testicles at the City Hospital, which it seemed to us was primary disease of the epididymis. Double castration was followed by cure. Another case was a young man who came into my office, and said that one of his testicles had been swollen several times. He had been treated by a number of physicians, among others Keyes, of New York, who diagnosed fibrosis of the bladder and did a median section and drained the bladder. This was followed by relief for three weeks. The left testicle then enlarged and abscess formed and discharged. During all this time he had been treated for prostatic or bladder disease. The inference is that his testicular disease is secondary to tuberculosis about the neck of the bladder.

Dr. W. O. Roberts: Suppose there was tuberculosis of the prostate or seminal vesicles, would you castrate?

Dr. Cartledge: I believe that I would. It seems to me that tuberculosis about the prostate and seminal vesicles often gets well.

Dr. W. L. Rodman: It seems to me that the two points of greatest interest raised by the essayist are: First, what is the primary seat or

focus of the disease? and second, How shall it be treated? My own experience leads me to say that in the vast majority of cases the disease is primarily in the epididymis. I have examined many specimens removed by myself and others, and have never yet seen a case where it was not demonstrated that the disease began in the epididymis. I have seen many cases in which the disease was limited to the epididymis, and others in which the body of the testicle became involved later. A patient may have considerable disease of the epididymis for years without any other part of the genito-urinary tract becoming involved. As to the treatment I think the essayist has taken the proper position. If the disease is bilateral more conservatism should be observed than if it is unilateral. If it is clearly unilateral it is best to sacrifice the testicle. My belief is that a man is about as well off with one testicle as with two. A patient whom I exhibited to this society about two years ago, after a unilateral castration, has since become the father of a child, and tells me there is no difference in his condition sexually.

In view of the fact that I have been in the habit of practicing partial operation in benign tumors I can understand how this same plan of treatment can be pursued in tubercular disease of the testicle. But it must be remembered that here we are dealing with something in the nature of a malignant disease, and we must be more radical. I would not castrate if the prostate was involved also. How many cases of tubercular disease of the epididymis or body of the testicle get well? I can not recall a single case where I have practiced castration that has come back to me with involvement of the other testicle, or where there has been secondary involvement of other parts of the genito-urinary tract. There may have been recurrences, but they have not come to me; as such cases follow one, I take it none have recurred.

Dr. F. C. Wilson: It seems to me we should accept the rule that it is best to get rid of a tubercular process whenever it can be reached, and if the prostate is involved we lessen, by removing the diseased testicle, one focal spot, and relieve the system to that extent.

Dr. A. M. Vance: I would like to hear Dr. Robert's opinion of conservation in the treatment of tuberculosis testis, and whether or not he thinks it possible to remove all diseased tissue without destroying the function of the organ.

Dr. Roberts: It seems to me the best plan always is to do castration just as soon as the diagnosis is clear. I do not believe in conservation here. I would operate even if the prostate or seminal vesicles are

involved. As Dr. Wilson stated, by removing as much of the disease as is accessible we rid the body to that extent of infective material and so, prolong life.

Dr. Rodman: If you had malignant disease of the breast and enlargement of the axillary glands, would it be good surgery to remove the breast and allow the glands to remain?

Dr. Roberts: This would not be a parallel case. I have refused heretofore to operate where both testicles were involved, but hereafter I shall operate. I intended to embody in the report read to-night the history of a case of varicocele which I operated upon by a new but not original method about ten days ago. I made a long incision extending nearly down to the lower end of the scrotum, and after removing the veins I brought the lower end of the incision to the upper one and stitched it there. It drew the scrotum well up and made the line of incision transverse instead of perpendicular. I can not recall whose operation it is.

Dr. Cartledge: This idea originated with Dr. Parker, of New Orleans, and I learned of it first in a paper which he read before the Southern Surgical and Gynecological Association.

Dr. Vance: I believed at the time I saw this young man that the right epididymis was affected, and I spoke to the father upon the subject of the other testicles becoming involved. I have never removed both testicles. I remember one case in a medical student who refused to have castration done. After three or four months the other testicle became involved, the disease spread to the bladder and ureter, leading to suppression of urine. I am convinced that the epididymis is primarily involved in some cases. I believe that castration should be done. I should like to hear an expression from some of the Fellows as to how long in their experience persons upon whom double castration has been done retain their sexual vigor. I was once asked this question on the witness-stand. In horses the sexual act is performed a long time after castration. The question, how long will they get up an erection? is often a very interesting one to these people.

Dr. T. Hunt Stucky: Dr. Roberts has covered the ground most thoroughly. This young man presented himself to me about ten days before Dr. Roberts saw him; diagnosis had been made of tubercular disease of the testicle. Dr. Vance saw the case also and confirmed the diagnosis. The rule in these cases is, I believe, that if the epididymis is involved the testicle will subsequently become infected. I was satis-

fied at the time of this operation there was very little if any enlargement of the body of the testicle.

Dr. Vance: About a month ago a young man came to me at the suggestion of some of his friends. The history was that he had had syphilis five years ago. For some time he had been troubled with hoarseness. He had been a patient of Dr. Stucky before coming to me. For three weeks before coming to me he had had some difficulty in deglutition. I believed it was a gummatous process in the mediastinum, and advised a vigorous course of iodides. He went to Hot Springs, and while walking along the street had hemorrhage from the mouth and died in a few minutes. Whether he died from rupture of an abscess, the result of breaking down of a gumma or an aneurism, I have no means of ascertaining.

Dr. J. M. Ray: Some of you probably remember that I reported a number of cases of aneurism of the arch of the aorta, in which laryngeal symptoms were the first that attracted attention, and reading an account of this case in the newspapers I made a mental diagnosis of aneurism of the arch of the aorta. One of the cases I reported died very much like this. The patient had gone to New York on business, and at my suggestion he consulted a noted physician, who made a diagnosis of aneurism of the arch of the aorta, giving his reasons. There was entire absence of movement of the right vocal cord. It was eighteen months after this before we could detect any other sign of aneurism. He went to New York again on business—was seized with an attack of cough, and the aneurism ruptured into the trachea.

Dr. J. G. Cecil: There are three points in Dr. Vance's case which would incline me to the belief that it was aneurism. First, syphilis is frequently a cause of aneurism; second, the man was an athlete; third, he was addicted to the excessive use of alcohol. These points incline me to believe that he died from rupture of an aneurism rather than the invasion of a blood-vessel by an abscess.

Dr. Vance: This man had no difficulty in breathing; did have difficulty and pain in swallowing; had no pallor or engorgement of the blood-vessels, nor any of the signs of aneurism; he did not die after a fit of cough.

Dr. Bullock: I saw one of the cases reported by Dr. Ray. There was very little difficulty in making out the bruit, especially posteriorly. My idea of the case reported by Dr. Vance is that there was no aneurism.

Dr. J. M. Ray: I am sorry none of the oculists are present, as this case will interest only them. Two years ago I saw this man at the instigation of a friend. Four years ago he had gonorrheal ophthalmia, with destruction of the cornea in the right eye and phthisis bulbi. At the same time there was a small perforation in the left eye that caused prolapse and adhesion of the iris to the cornea. He had no vision in the left eye, $\frac{20}{80}$, and I thought the defect could be accounted for by the abnormal curve in the cornea, producing irregular astigmatism, and did not find any disease in the fundus of the eye. I saw nothing more of him until this spring, when he consulted me and stated that his sight had been getting very much worse. I found no change in the external condition of things, but his sight had dropped to fingers at six or eight feet. Tension was almost normal, yet the diagnosis of glaucoma simplex, with atrophy, can be easily made out by the peculiar cupping of the disc. I believe an operation could have some influence in retarding the progress of the disease, but would not increase the vision.

At a meeting of the Kentucky State Medical Society ten years ago I made the remark that in many cases of chronic glaucoma an operation did no good, but much could often be accomplished in these cases by agents which contract the pupil. I was criticised by several present for such statements, but since that time this idea has gained in the profession. I have operated a number of times without influencing in any way the progress of the disease. In simple glaucoma and in many of these cases I believe an operation is contra-indicated. I believe, however, in the case I present to-night the corneal adhesion is the factor in the causation of the glaucoma, and I brought the patient before you to get your opinion as to the advisability of iridectomy and separation of the corneal adhesions.

Dr. J. A. Larrabee: I should like to ask Dr. Ray how myotics relieve glaucoma?

Dr. Ray: The various theories of glaucoma seem to show that it is possibly a form of inflammation of the choroid and ciliary body, and the lymph thrown out about the base of the iris closes the channels of excretion found in this region. In the majority of cases there are adhesions between the cornea and iris, and myotics, by contracting the iris, pull it away from contact with the cornea and open up the angle of the anterior chamber and thus re-establish elimination from the eye.

Dr. Bullock: I would like to report a case of remarkably short umbilical cord. The variations in length, I believe, are from six to sixty inches. I was called to see a primipara who was having then vigorous pains; the os had been completely dilated several hours, but no progress had been made. I applied forceps, and after considerable effort delivered a child of about eight months. I noticed considerable tension on the cord, and as soon as the head was born I ligated the cord and separated it. When the placenta came away I found the cord measured only seven inches, including that part attached to the abdominal wall of the child. I could hardly understand why the placenta was not detached from the uterine wall by traction upon the forceps, unless it was on account of a very low implantation, or by the fact that the uterus had descended.

Dr. Cecil: I have never seen a cord shorter than twelve inches. I have seen dystocia produced by numerous turns of the cord around the neck or body of the child, and very generally the child was born asphyxiated. The only thing to do, of course, is to divide the cord at once and depend upon subsequent resuscitation of the child.

Dr. Rodman: At the last meeting I showed a limb amputated for malignant disease (epithelioma), and at the time stated that I did not remove some enlarged inguinal glands because I thought them inflammatory, basing this opinion upon the existence of a diffuse lymphangitis of the leg. These glands have gone down, proving the swelling to be inflammatory.

Dr. Cartledge: I would like to report a case of use of the Murphy button, a case of pelvic abscess and fecal fistula, with extensive matting together of the bowel; ten inches of small bowel resected. The button passed on the sixth day. This is the third time I have used the Murphy button; twice successfully. The other was not a fair test, as the patient died three hours after the operation as the result of hemorrhage.

Dr. Stucky: The boy I exhibited to the society several weeks ago with a foreign body in one of the main bronchi, and whose mother refused to allow a tracheotomy, did very well for about ten days, and then in a violent fit of cough threw off a piece of peanut hull. The bronchial irritation subsided, and he is now well.

Dr. H. A. Cottell: I wish to report a case which in my practice is unique. I was called yesterday to deliver a woman in her fifth pregnancy. I had delivered her previously of a child and did not remember

any thing unusual in the case, although she said the condition which I am about to describe had existed since her first confinement. Putting my finger into the vagina I was surprised to find protruding a mass, feeling like an amniotic sac, which filled the vagina. I tried for some time, but could not find the os. I waited a short while, and then pushing back some of this protruding mass finally made out the os. The position of the child was posterior and rotation was extremely slow. I put on forceps and delivered the child with the utmost ease. I took as good a view as possible of the abnormal structure in the vagina; it seemed to project in front of and behind the uterus. What was the protruding mass? Was it hematoma, hernia, or what not?

Dr. Bullock: I will report a case bearing upon this in some respects and showing the bad effects of pressure. I was called by Dr. Butler to see a case in which he had been asked to perform cesarean section, but had determined to deliver by other methods on account of the bad surroundings. We applied forceps, but could not deliver. We did craniotomy, but after the brain escaped the size of the head was not sufficiently reduced to deliver the fetus. We then removed the cranial bones one by one. There was no damage done to the soft parts of the mother that we could discover. She was given a douche intra-uterine. About a month afterward Dr. Butler asked me to assist him to repair what was supposed to be a vesico-vaginal fistula. On making an examination we discovered that the patient was in the position of a woman who had had a vaginal hysterectomy performed. There had been complete destruction by sloughing of the uterus and appendages.

Stated Meeting, Friday, October 16, 1896, S. G. Dabney, President, in the chair.

Presentation of Clinical Cases. Dr. A. M. Vance: This boy, about thirteen years of age, was brought to me six months ago to be treated for club-foot, which I take to be congenital. The history, as learned from his friends, is that the club-foot had existed for five years. I noticed some shortening of the limb, and upon examining him found this tumor, which I take to be a form of spina bifida. He has had since birth attacks which seem to me, from the account of his friends, to be a form of focal epilepsy.

Dr. A. M. Cartledge: Dr. Vance's case is a very interesting growth. I am not positive as to the nature of the tumor. From the condition

of the limb there seems little doubt that the tumor was the cause of the arrested development by pressing upon the sacral nerves. When I examined the boy standing up I thought there was a defect in bony development, but by closer examination I see that it extends out on the buttock and seems to be a neoplasm of some kind. It bears much resemblance to a fatty tumor, as some of the gentlemen suggested. If such is the case it is very thoroughly imbedded, for it displays immobility. An exploration would be quite justifiable, I think, with a view of removing the tumor, if possible.

Dr. J. B. Marvin: I find myself in the dark as to the nature of the trouble. Spina bifida of this size and in this location should have affected both limbs.* A fatty tumor, which this certainly resembles, unless very deeply imbedded, as Dr. Cartledge suggests, would not have caused wasting in the leg. The growth, whatever it may be, extended to the left side, and it is the left leg which is affected. The symptoms all point to pressure, and an interesting point would have been the history of pain. We see the results of interference with the trophic center and also some loss of motion. I think I should introduce an aspirating needle.

Dr. W. O. Roberts: It seems to me a good deal more like a neoplasm than spina bifida. There is not the deformity of the sacral bones that we should expect in spina bifida; and it has to me the feel of a fatty tumor. The only suspicious thing about it is the tenderness over the upper part of the swelling. If it is spina bifida I am satisfied that it is cut off, and it would be feasible to aspirate it.

Dr. W. L. Rodman: The differences of opinion which have been expressed impresses upon our mind the difficulty of making a diagnosis between spina bifida and fatty tumor in this situation. I believe it is a lipoma, yet knowing that I might be mistaken would not undertake an operation without exploration. It has a doughy feel, is umbilicated, and the skin over it is dimpled. Yet in this situation the sac of a spina bifida is often very thick and may resemble a fatty tumor in many ways.

Dr. J. A. Larrabee: I would like to ask if pressure upon the tumor produces cerebral symptoms, or if at any time the cerebral symptoms spoken of by Dr. Vance were in any way connected with pressure on the tumor. This to my mind is a most important point in the diagnosis of spina bifida.

Dr. W. B. Coley, of New York: I have seen lipomata that were exceedingly tender on pressure and gave every appearance of fluctua-

tion ; yet I think this case is one of spina bifida with the fluid working more to the left side than to the right, causing unilateral pressure.

Dr. Vance: It seems to me that every thing points more to a spina bifida, and such I believe it to be.

Dr. Rodman: I wish to exhibit a patient, thirty-six years of age, with a tubercular history in the family, the mother having died of lung trouble. He noticed, two years ago, swelling in the right knee, then in the left shoulder, and now there is an abscess over the spine of the left scapula. I was satisfied six months ago that he had tuberculosis, and have curetted the shoulder joint removing considerable dead bone. His knee is in a bad condition now, and the question is whether we should explore the knee and make an atypical resection or do an amputation. The joint has increased considerably in size in the last three months, but not during the past month. There is not great pain. He has lost about twenty-five pounds weight. The only tender spot is nearly over the inner condyle of the femur. The lungs are clear.

Dr. Roberts: It seems to me that Dr. Rodman's case is one of tuberculous disease, and the treatment would be to open the knee joint and decide then what is to be done. I believe, however, that the bone is so extensively diseased that amputation will have to be done.

Dr. Vance: I am inclined to believe that this trouble is syphilitic. We all know that multiple lesions about the joints in adults are more often syphilitic than tubercular. I would certainly first submit him to rigorous antisymphilitic treatment.

Dr. Rodman: The disease in the knee joint is certainly more advanced than would appear from the symptoms, and it seems to me the proper thing to do would be to make a transverse incision, and then determine the depth of the disease in the tibia, and to decide then whether or not it is susceptible of resection. I believe it is too extensive to admit of resection and that amputation would give the best results. Our experience with such limbs after resection warrants this belief.

Dr. Coley: I examined the case on Sunday last, and was strongly impressed with the opinion that it was tubercular. As regards the rarity of conditions like this, it certainly does occur in adults. Within the last year I have seen at least one case quite as extensive as this. As regards treatment I do not think he could stand resection, and that the chances are that the wound would not heal kindly. I would rather advise in this case complete fixation, so that he would

have no use whatever of the knee joint and try to get him in better condition. I do not think that even amputation at the present time in his run-down condition would be best.

Dr. J. M. Holloway: I have seen such favorable results from atypical resections about the knee joint that I think most favorably of it. I am inclined to think that if he had some constructive for a while, and the limb put at rest, a great deal might be done by cleansing the joint and getting rid of the infected synovial sac. I believe there is only a superficial invasion, and that if the diseased parts are trimmed away I believe it would be safer than amputation. Amputation would necessarily have to be about the middle of the thigh, and it is a very serious thing with the septic condition which he now has.

Dr. Rodman: I am very glad indeed to have had the free discussion of the case before the patient. He is an intelligent man, and will appreciate what has been said about his condition. I have been slow to adopt radical measures in his case, hoping to save his limb if possible. I have been strongly impressed with the tubercular nature of the case, and have never considered the question of giving treatment for syphilis. As to fixation of the limb this has been done, and he has had tonics and reconstructives; I do not believe he is in a condition to stand any kind of resection. At the same time, while advising amputation, I have told him that we would explore the joint thoroughly, and if it was possible to save the joint we would do so. My opinion is that he will stand amputation, and that we are losing time by waiting.

Dr. Rodman exhibited three patients upon which he had done radical cure operations for herniæ. Two were done according to the Bassini and one according to the Kocher method.

Dr. Coley: I was very much pleased to see the results in Dr. Rodman's cases, and quite agree with what Dr. Vance has said in regard to the use of trusses before resorting to radical cure, especially in children, as we all know a large proportion of children get well if a truss is properly worn. There is one complication of hernia that is sufficient to demand the radical operation, and that is undescended testicle. I operated several years ago upon three of these cases. The result as far as the operation was concerned was good, but the testicle did not descend. In most cases of undescended testicle if the truss is applied and we wait until puberty the testicle will descend, and I have ceased to operate upon such cases. The result of radical operation is perhaps better in children than in adults. I have operated

upon about two hundred children, and all have been followed, some of them five years. The only fatal result was a pneumonia following ether. I have used only the Bassini method. In the Kocher operation of Dr. Rodman the result is excellent and will probably hold, but I do not think the operation is as good as Bassini's. In regard to the suturing material, silk can be used without producing any trouble in a large number of cases, but there are a certain number of cases in which union is interfered with by an unabsorbable suture. I have adopted kangaroo for the buried sutures and catgut for the skin. I have ninety-six per cent of primary unions by using these sutures, and out of three hundred and thirty cases I have had only three relapses. Therefore I think these cases are sufficient to prove that an unabsorbable suture is unnecessary. As to the question whether the results are better in children or adults, I think children have the best chance for radical cure, although in adults, if the hernia is not too old or the patient too old, the chances are excellent for a permanent cure after the Bassini operation.

Dr. Vance: The society knows my views on the use of the truss; but when the surroundings are such that the truss can not be thoroughly tried a cure by operation should be attempted.

Dr. Roberts: I believe in doing the radical operation in all cases where we can not control the hernia with a truss. The Bassini method has given me the best results.

Dr. Rodman: I thank the gentlemen for the free discussion of the case. Of course I agree with every thing that has been said in regard to the treatment of these cases by mechanical means. In one of these cases the truss had been tried several years; in the other it had been tried in an indifferent manner, and I thought operation the safest thing for him. Like Dr. Coley, I prefer the Bassini to the Kocher operation, although the result of the Kocher operation is better in the cases presented to-night. The more I do the Bassini operation the better I like it. I fully agree with Dr. Coley also in his remarks in regard to the animal suture. I think where we use Kangaroo tendon which is not too large and thoroughly sterilized it will remain long enough to get thorough union, and that is all we desire.

Dr. Rodman: I show a specimen from a patient sent in from Southern Indiana with an ulcer on the heel that had been there two years. The patient is forty-nine years of age. The ulcer had been treated in various ways, including the use of caustics, but had failed to heal. I advised

amputation when I first saw him in February last, but he refused to have the operation done. I then burned it thoroughly with Michel's paste, and had partial cicatrization before I left in June for Europe. He came back to me about a week ago to have the foot removed. I do not think any one will doubt the nature of the growth and the propriety of treatment adopted. There was some enlargement of the inguinal glands, which I believed to be inflammatory and did not remove them.

Dr. Cartledge: I have seen one case of ulcer perforating in this situation that at one time resembled epithelioma. I do not wish to criticise the treatment, except that it appears there was room for considerable resection and it might have offered something.

Dr. Holloway: My view is that at his age resection is not as practicable as an artificial limb.

Dr. Coley: In a case like that I should certainly advise amputation; partial operation would have given the man much less chance: the chances are that the epithelioma would recur.

Dr. Rodman: The epitheliomatous disease extended well down to the bone. I would except very pointedly to the criticism of Dr. Cartledge. Any thing less than amputation should never be practiced in malignant disease of an extremity. If I find in a week that there is no subsidence of the enlarged inguinal glands, I will be tempted to remove them.

Dr. Vance: I wish to show two stones removed from the bladder of a man forty-five years of age. He had abscesses and fistula for many years. Seven years ago internal urethrotomy was done. Six months ago he came to me with a tight stricture anteriorly, which I cut. He gave a history of damming back of urine and chronic cystitis. About a month ago he came to me again. I felt what I supposed to be a very much enlarged middle lobe of the prostate. I put him under ether and removed these two stones, which I believe to have been prostatic. He did fairly well for forty-eight hours, and then had suppression of urine, from which he died. The only symptom of uremia he had was nausea.

Dr. Roberts: On Tuesday last a man appeared at my clinic at the University with the history that about fifteen months ago he had an attack of what I supposed to be renal colic. Some months ago he began to suffer from bladder symptoms which have increased in severity. I found a very large stone and removed it after doing a suprapubic cystotomy.

I should like to say something with reference to suprapubic cystotomy. I have done many of these in the last few years. In two of my cases the stone was quite large and adherent to the wall of the bladder. In one of my cases the man wore a stem about a month and then he allowed the opening to close, notwithstanding that he was leading a catheter life a long time before the operation was done. A year after the operation I was called to see him again, and found several stones in the bladder and operated upon him again, removing four stones. I treated him with a stem and had all the urine pass through suprapubic opening, and washed out the bladder daily through this tube. After about a year he complained a great deal of bladder symptoms again. I enlarged the opening and removed from his bladder seven small stones, putting in a stem as large as my finger. A short time ago he was complaining, and under chloroform I searched the bladder but found no stones.

In the second case I operated one year ago and removed two stones, the largest being about the size of that exhibited to-night, the other somewhat smaller. The operation was done in June, 1895. Last July I operated upon him again and removed two stones. I have him now wearing a large stem, so that, should another stone form, it could be removed without operation. These are the only cases in which stones have re-formed after epicystotomy.

Dr. Rodman: I would like to ask, what has been the mortality?

Dr. Roberts: I have lost two cases. One of these was not for stone, but for a malignant growth. The other was an adherent stone. The man lived nearly six weeks after the operation and died of uremia.

BACTERIA AND AERATED WATER.—Professor Frankland, in *Nature*, shows the fallaciousness of the prevalent idea that by drinking aerated water safety from infectious diseases is insured. In experiments by Slater the number of bacteria varied from two hundred and ninety-nine per cubic centimeter, with fifteen grams of carbon dioxide per liter, to two thousand with six grams per liter. The spores of the anthrax bacillus have been found to survive one hundred and fifty-four days in aerated water, but the cholera bacilli can not live longer than three hours. The typhoid bacillus requires a period of two weeks to insure its destruction. The author recommends storage for a certain period, as time is thereby given for the destruction of the pathogenic bacilli by the innocuous forms.—*Medical News*.

Reviews and Bibliography.

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The press-work and illustration is executed in the uniformly excellent style of the publishing house from which it is issued. D. T. S.

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The Ready-Reference Hand-Book of Diseases of the Skin. By GEORGE THOMAS JACKSON, M. D. (col.), Professor of Dermatology in the Woman's Medical College of the New York Infirmary, etc. With sixty-nine illustrations. Second edition, revised and enlarged. 594 pp. Lea Brothers & Co: New York and Philadelphia. 1896.

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Atlas of Traumatic Fractures and Luxations, with a Brief Treatise. By H. HELFERICH, M. D., Professor at the University of Greifswald. With one hundred and sixty-six illustrations, after original drawings, by DR. JOSEPH TRUMPP. (Wood's Medical Hand Atlases, No. 3.) 142 pp. New York: William Wood & Co. 1896.

Practical Diagnosis: The Use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, B. Sc., Professor of Therapeutics in Jefferson Medical College of Philadelphia, etc. Illustrated with one hundred and ninety-one engravings and nineteen colored plates. 573 pp. Philadelphia and New York. 1896.

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- Remote Consequences of Injuries of Nerves, and Their Treatment.** An examination of the present condition of wounds received, 1863-65, with additional illustrative cases. By JOHN K. MITCHELL, M. D., Lecturer on Physical Diagnosis, University of Pennsylvania, etc. 245 pp. Philadelphia: Lea Brothers & Co. 1895.
- A Practical Treatise on Materia Medica and Therapeutics.** By ROBERTS BARTHOLOW, M. A., M. D., LL. D., Professor Emeritus of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College of Philadelphia, etc. Ninth edition, revised and enlarged. 866 pp. New York: D. Appleton & Co. 1896.
- Manual of Gynecology.** By HENRY T. BYFORD, M. D., Professor of Gynecology and Clinical Gynecology in the College of Physicians and Surgeons, Chicago, etc. Containing two hundred and thirty-four illustrations, many of which are original. 488 pp. Price, \$2.50. Philadelphia: P. Blakiston, Son & Co. 1895.
- The Medical and Surgical Uses of Electricity.** By A. D. ROCKWELL, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, etc. Illustrated with two hundred engravings. New edition. 612 pp. New York: William Wood & Co. 1896.
- A Text-Book of Diseases of the Nose and Throat.** By FRANCKE HUNTINGTON BOWORTH, A. B. Cantab., A. M., M. D., Professor of Diseases of the Throat in Bellevue Hospital, New York. Illustrated with one hundred and eighty-six engravings. 814 pp. New York: William Wood & Co. 1896.
- A Text-Book of Materia Medica, Therapeutics, and Pharmacology.** By GEORGE FRANK BUTLER, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago, etc. 858 pp. Price, \$4.00, net. Philadelphia: W. B. Saunders. 1896.
- Functional Disorders of the Nervous System in Women.** By T. J. MCGILLIENDDY, A. M., M. D., Consulting Physician to the Italian Hospital, New York, etc. Illustrated by forty-five wood engravings and two chromo-lithographic plates. 367 pp. New York: William Wood & Co. 1896.
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- Outlines of Materia Medica and Pharmacology.** A Text-book for Students. By M. M. BRACKEN, M. D., Professor of Materia Medica, Therapeutics, and Clinical Medicine, University of Minnesota. 383 pp. Price, \$2.75. Philadelphia: P. Blakiston, Son & Co. 1896.
- A System of Medicine.** By many writers. Edited by THOMAS CLIFFORD ALBUTT, M. A., M. D., F. R. C. P., F. L. S., F. S. A., Regius Professor of Physic in the University of Cambridge, etc. Vol. I. 978 pp. Price, \$5. McMillan & Co.: New York and London. 1896.
- Anatomical Atlas of Obstetric Diagnosis and Treatment.** By OSCAR SCHAEFFER, M. D. With one hundred and forty-five illustrations. 234 pp. (Wood's Medical Hand-Book Series, No. 4.) New York: William Wood & Co. 1896.
- Immunity, Protective Inoculations in Infectious Diseases, and Serum Therapy.** By GEORGE M. STERNBERG, M. D., LL. D., Surgeon-General U. S. Army, etc. 323 pp. New York: Wm. Wood & Co. 1895.
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Abstracts and Selections.

RECENT PROGRESS IN NEUROLOGY.—Neurological literature for the past few years has reflected very little which possessed either novelty or special interest in the domain of gross anatomy or histology, but in the more delicate and still somewhat obscure field of minute histology and anatomico-physiological research much work has been done, with a resultant degree of enlightenment which is prophetic of a rich harvest in the near future. The factor chiefly responsible for our advancement in this direction has been the various improvements devised in methods of research, the most notable of which are associated with the names of Golgi, Luciani, Marchi, and Ramon y Cajal. Other workers in this field, whose contributions have added notably to the value and scope of our knowledge of the subject, are Andriezen, Risien Russell, Mellus, Van Gehuchten, Turner, Schaeffer, Bevan Lewis, Biedl, and Chaslin.

The line of investigation which has been most positively fruitful in results has been that of experimentally induced pathology. Beginning with the functionally highest structures, the cells of the cortex, Andriezen has shown that the apical processes of the great pyramidal cells of this region receive the terminal processes of the fillet radiations, a fact which leads to the conclusion that these are the sensory cells of the cortex. If accepted, this conclusion points to the correlated acceptance of a practically identical cortical localization of motor and sensory function or representation. Further support of this teaching is to be found in the results obtained through experimental studies by Flood and Schaeffer. (*British Med. Journal*, July 28, 1894.) With very few exceptions this view is generally accepted among neurologists to-day. In connection with this subject of cerebral representation of common sensation, Spitzka (*Lancet*, January 19, 1895,) publishes advance notes of a case of direct interest and importance, involving a focal lesion of the right stratum intermedium, the patient presenting during life more or less complete right hemianesthesia, with loss of mechanical co-ordination, but preservation of equilibrium. Further study, not yet complete in this case, is expected to demonstrate facts of importance in connection with the pathway of sensory fibers in the cerebrum. Turner's (*Brain*, 70, 71, 1895,) experiments, several in number, also bear upon this subject of the pathway of fibers conducting sensory impressions. He destroyed the tubercle of Rolando in the medulla of the monkey, and noted as a result, (1) defect or abolition of all forms of sensation in the skin, mucous membrane, and cornea supplied by the fifth nerve, with contraction of the pupil of the same side, but without trophic change in the eye. The loss of sensibility was in relation to destruction of the ascending trigeminal root forming the

superficial white stratum of the tubercle. The effect on sensation in the the body was (2) loss or defect of the sense of touch and of localization on the side of the lesion, but retained pain-sense, while on the side opposite the impairment was of pain-sense only.

Mellus (communication to Royal Society, England), working in the laboratory of Horsley, reports the results of a series of experiments made with the object of determining the pathway of certain motor fibers from the cortex downward. The bonnet-monkey was the subject of experiment, the centers for the hallux, thumb, and face in the left hemisphere being the areas of the cortex subjected to minute experimental lesions. He found that the coarser degenerate associate fibers from the thumb lesion were distributed to the upper part of the motor area, and the finer fibers to the lower—an observation corroborative of the measurements of Bevan Lewis. In the internal capsule these degenerate fibers were divisible into two systems, one of the fine fibers passing into the outer surface of the optic thalamus from the posterior limb of the capsule; the other, coarse fibers, passing through the internal capsule into the crus and ending apparently in the *substantia nigra*. The fibers representing degeneration secondary to the lesions of the facial center are situated in the middle third of the crus, mingled with the fibers of the pyramid, and not occupying a separate space mesial to the pyramid. These experimental findings are especially noteworthy, since they in some degree are opposed to the teachings of Meynert and others.

The pituitary body, long an enigma as regards its function, has been the subject of especial study by Andriezen (British Med. Journal, January 13, 1894,) and Sacchi and Vassali (*Centralbl. f. Allgem. Path. Anat.*, May, 1894). They find that the function of this body is essentially trophic, enabling the nerve tissues to take up and assimilate oxygen from the blood stream. It also exerts an influence upon metabolism, destroying or rendering innocuous certain waste products. The pathological findings in acromegaly involving disease, usually of hypertrophic type, of this gland are strongly confirmatory of the experimental findings of Andriezen.

The cerebellum has perhaps been the subject of more extended and enthusiastic study than any other special portion of the cerebro-spinal system during the past half decade. Marchi, Luciani, Risien Russell (British Med. Journal, July 28, 1894), Turner (British Med. Journal, August 21, 1894), Biedl, and Ferrier are among the large number who have made notable contributions to our present knowledge of the subject. Ferrier (Annual of Univ. Med. Sciences, 1895, Vol. 2, section, Brain), in his presidential address before the London Neurological Society, reviews critically the published researches in this field of Luciani and Marchi. He accepts as proven by them the facts: (1) That the cerebellum has no share in psychical manifestations; (2) its removal causes no evident impairment of any of the special senses, nor cutaneous nor muscular sensibility; (3) it has nothing to do with sexual impulse or desire; (4) the influence of the cerebellum is direct and not crossed; (5) the middle lobe is not, as taught by

Nothnagel, the essential lobe. Some of these statements, as will be noted, are radical innovations in teaching and belief.—*William Broaddus Pritchard, M.D., in Medical News.*

A METHOD OF ANCHORING THE KIDNEY.—The frequency with which surgeons meet both floating and movable kidney has long since attracted attention as to the best method of anchoring this organ so as to preserve its normal functions. The multitude of complex disturbances and reflex symptoms associated with a floating or movable kidney are such that the surgeon is constantly called on to render relief. These abnormal conditions may last for years without serious results, yet they are liable to give rise to degenerative changes which may necessitate a nephrectomy or a nephrotomy at any moment. Palliative treatment, by means of rest and bandaging, as a rule, avails but little. The difficulty of holding a kidney in place with a bandage is such that little reliance can be placed on this method of treatment. From the fact that this abnormal condition is chiefly a source of annoyance rather than danger, patients hesitate in submitting to an operation for the purpose of anchoring the kidney, as it seems to them like a very large undertaking for the purpose of accomplishing very small results. It is hard to make them understand the importance of having the kidney anchored, and the danger that is likely to arise from neglect of the proper surgical treatment. At the same time we can hardly blame them or their family physician for not urging an operation which requires a large oblique gash through the lumbar muscles and a number of buried sutures which are difficult to insert. Only those who have attempted to perform this operation can appreciate how hard it is to hold the kidney in place by the old-fashioned method until it is sutured to the deep muscles of the back. The difficulty of this procedure stimulated me to devise a new operation, which had for its object simplicity, rapidity, and efficiency.

Referring to a paper read before the Columbus Academy of Medicine, November 19, 1894, on "A New Method of Anchoring the Kidney," published in the Columbus Medical Journal, December 25, 1894, you will find that my operation consists "in making the ordinary perpendicular abdominal incision over the median line of the kidney. As a rule it need not exceed two and a half inches in length, depending largely on the thickness of the abdominal walls. Having made the incision sufficiently large to get the fingers in and bring the kidney to its normal place, I then use a long needle which I have had made on purpose, seven inches in length. Two of these needles are threaded with aseptic silkworm gut or aseptic silk, using but one ligature. Having placed the kidney in its normal position (and in the case of a floating kidney scored the peritoneum so far as to favor adhesions), I now insert my first needle through the upper and inner part of the cortical substance of the kidney directly through the muscles of the back, bringing it out between the eleventh and twelfth ribs. The second needle, which is on the other end of the ligature, is also passed through in a similar manner,

about an inch from its fellow, through the upper and outer cortical substance of the kidney, making, as you will recognize, a staple stitch. These ligatures are tied on the integument of the patient's back by an assistant. If necessary, another suture is inserted in a similar manner through the outer margin of the kidney, the first needle of the second suture being passed about an inch below the last needle of the first suture, and the second needle of the second suture about an inch below the first needle of the second suture, through the cortical substance of the outer portion of the kidney."

You will readily see that this is a very simple operation; does not involve any vital structures, and can be performed in a few moments, with little or no danger to the patient, while the results have been even more than anticipated. In explaining the method I had adopted to my friends I found but practically one criticism, and that was a lack of confidence in obtaining satisfactory results. Recognizing the fact that it required several sutures by the old method to hold the kidney in place, they did not see how it was possible for one or two sutures to accomplish the same. If you stop to study the difference between the two methods, you will readily observe that the new method "clinches," so to speak, the kidney by a staple suture, while the old method simply sutured the posterior portion to the deep lumbar muscles. The merest tyro will readily see the mechanical difference between the two sutures. The one not only embraces the entire kidney, but pierces the lumbar muscles and is reinforced by the integument on the back, while the other simply involves a portion of the friable cortex of the kidney and a small portion of the tenderloin; hence it is quite evident that more sutures would be required by the old method than the new.

Since devising this plan for anchoring the kidney, I have had an opportunity for demonstrating its practical utility in five (the author operated his sixth case at the University Hospital during the recent meeting of the Ohio State Medical Society, which made a prompt and uneventful recovery, making a total of seven cases with seven recoveries by this method) cases operated by myself and one by my colleague, Dr. Means, with the most satisfactory results in each case. The rapidity with which the operations were done is one of the marked features. It is only necessary to make a very small opening into the abdominal cavity, bring the kidney to its normal position, pierce it with the needles, as above described, tie the sutures over a piece of iodoform gauze on the back and close the abdominal wound. There are seldom any constitutional symptoms following the operation. The patient has little or no pain or rise of temperature, while the pulse remains practically normal. In about ten days the suture can be removed, leaving the kidney entirely free from any foreign substance. I usually have the patient remain quiet from two to three weeks after the operation.

Up to date there has not been a single instance of a return of the disease, so far as I have any knowledge, the patients are all enjoying good health, and are entirely free from the reflex symptoms which were so annoying prior to the operation. In two of these cases it was my fortune to

have an opportunity to examine the result; in one case several months afterward and the other nearly two years. In each case the patient had to be operated for ovarian trouble, and in each I made a careful examination of the kidney which had been anchored and found it firmly fixed and, so far as I was able to judge, in a perfectly healthy condition.

I do not claim that the few cases which I have reported are sufficient to establish the fact that this method is without fault, but I do claim that up to date the results secured are better than those usually obtained by other methods.—*Dr. R. Harvey Reed, in the Maryland Medical Journal, October 17, 1896.*

REDUCED PERIOD OF INTUBATION BY THE SERUM TREATMENT OF LARYNGEAL DIPHTHERIA.—In the author's own cases of intubation before antitoxin the mortality was 62 per cent. As to the time the tube was worn, the minimum duration was forty-eight hours; the maximum six hundred and seventy-two hours. The average time the tube was worn was one hundred and eighty-five and a quarter hours. O'Dwyer collected one hundred and fifty-eight recoveries in which the time the tube was worn was accurately stated, and the average was found to be six days and two or three hours (one hundred and forty-six to one hundred and forty-seven hours). Huebner (*Klinische-Studien*) reports ten intubation cases treated with antitoxin, where the average duration was thirty-seven hours.

Bokai reports an average of sixty-one hours since the use of serum as against seventy-one hours before its use. O'Dwyer intubated thirty cases since the serum period, of which twenty recovered—66⅔ per cent. The minimum duration of the intubation in nineteen of these cases was eight hours; the maximum, one hundred and twenty hours. Final extubation was performed in 89½ per cent within one hundred and twenty hours, and 10½ per cent at one hundred and twenty hours. The average duration was 83½ hours in comparison to one hundred and forty-seven hours before the serum period. Therefore the serum treatment has lessened the time of intubation 63½ hours. O'Dwyer has written the author that the average duration of intubation since the serum period has been eighty hours, making his reduction, therefore, sixty-seven hours. Fischer's cases show a reduction in the time the tube was worn of sixty-eight hours. Numerous statistics are given which show the superiority of intubation over tracheotomy.

The author refers particularly to the fact that he has refrained from mentioning those cases of laryngeal diphtheria treated with antitoxin which recovered without the aid of intubation. These cases were in greater number than those operated, and the reason has unquestionably been due to the early use of antitoxin.

His conclusions, after using the serum treatment the last eighteen months, are as follows:

1. The duration of intubation varies.

In the cases just quoted, extubation has been done in from one half to four hundred and eight hours. The rule, however, in the majority of cases has been that final extubation can be performed within one hundred and twenty hours.

2. The average length of intubation has been reduced to a marked degree.

EUROPEAN OBSERVERS.

| | |
|----------------------|-----------|
| Bokai, | 18 hours. |
| Von Ranke, | 25½ " |
| Huebner, | 63 " |

AMERICAN OBSERVERS.

| | |
|----------------------|-----------|
| O'Dwyer, | 67 hours. |
| Fischer, | 68½ " |
| Rosenthal, | 71½ " |

3. The operation of tracheotomy is avoided, intubation being sufficient to cure even the long cases (five days and over), and there were no symptoms necessitating such a procedure.

4. The use of serum has placed intubation on a definite basis by

(a) Lowering the mortality.

(b) Shortening the period of intubation.

(c) Avoiding the major operation of tracheotomy.—*Dr. Edward Rosenthal, in Medical and Surgical Reporter.*

ARSENIC IN THE TREATMENT OF LUPUS ERYTHEMATOSUS.—At the sixty-eighth congress of German Naturalists and Physicians, held in September (*Deutsche Medizinal-Zeitung*, October 5, 1896), Dr. Joseph Schütz, of Frankfort-on-the-Main, spoke of the unsatisfactory results of prevailing methods of treating this disease, and particularly of the positive harm done with highly irritating applications employed for too long a time. He had found that arsenic in very weak solutions had a favorable influence on the disease; Fowler's solution, diluted with from four to six times its weight of water and painted on the affected area twice a day, caused within six days swelling and slight painfulness of the part, but without any exudation of serum; this condition subsided in eight days more under the use of mild pastes. The arsenic spared the healthy tissue. By this treatment he had cured nine cases. Healing had taken place without the formation of scars.—*New York Medical Journal.*

INEFFICIENCY FROM VENEREAL DISEASE IN THE ARMY.—The report of the Sanitary Commissioner with the Government of India for 1894 received marked attention in Parliament recently by a question put by Major Rasch to the Secretary of State for India. Major Rasch asked Lord George Hamilton how the Government in case of war proposed to replace 3,052 men reported by the Indian Government Sanitary Commissioner to be "constantly ineffective" from venereal diseases. Lord George Hamilton's reply was full of regret at the extensive prevalence of the disease, but he said he was "not aware of any means by which these ineffective men could be replaced on an emergency."—*British Medical Journal.*

MUST GIVE NOTICE OF TRIAL FOR INSANITY.—An inquiry and trial in the probate court in Kansas, had upon an information charging one with being a person of unsound mind and incapable of managing his own affairs; the Court of Appeals of that State holds, *In re Wellman*, decided June 12, 1896, should only be had after notice to the person alleged to be insane, and after opportunity has been given such person to be present at the trial, in person or by counsel. An adjudication of insanity that is made without such notice and opportunity to be heard it holds is a nullity and void, and a commitment thereunder to the insane asylum is illegal.

SLEEP EXPERIMENTS.—Professor Patrick and Dr. J. S. Gilbert, of the University of Iowa, in the *Psychological Review*, record experiments made to determine the effects of prolonged loss of sleep. Dr. Gilbert and two of the University teachers were kept awake for four days and three nights. One suffered most on the second night, another on the third, the other experimenter was not affected. All gained in weight. The power to lift steadily decreased, and memory and power of attention were also lessened. All powers were completely restored after a sleep of eight or ten hours.—*Medical News*.

THE INCOMPATIBILITY OF ANTIPYRINE AND CALOMEL.—Dr. H. Werner (*Pharmaceutische Zeitung*, June 10, 1896; *Wiener klinische Rundschau*, October 11, 1896,) gives a caution against the simultaneous use of these two drugs. Their reaction results, he says, in the formation of a dangerous amount of corrosive sublimate even when ordinary medicinal doses are given.—*New York Medical Journal*.

FOR BLEEDING GUMS.—After the extraction of teeth Vian recommends the following as an efficient styptic to check the bleeding:

R Chloroformi, ʒi;
 Acid. tannic, } āā ʒss;
 Menthol, . . }
 Tinct. krameræ, ʒi;
 Aquæ dest, q. s. ad. O j.

FOR CHRONIC INTERSTITIAL NEPHRITIS.—

R Hydrarg. cor. chlor., gr. i;
 Tr. ferri chlor., ʒij;
 Sp. eth. nitros., ʒij;
 Aquæ, ʒiss;
 Elix. simp. ad., ʒiv;

Sig.: Teaspoonful in water after each meal.

—*N. E. Med. Monthly*.

CYCLING FOR THE INSANE.—Bicycle riding has been introduced into the Michigan Insane Asylum at Kalamazoo for its beneficial effects on the patients.

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THE THYROID GLAND IN THERAPEUTICS.

Long ago somebody, with more poetry than science, called the heart, the brain, and the lungs "the tripod of life." In taking exceptions to this generalization it would naturally be suggested that the organs of alimentation are quite as essential to life as those of circulation, respiration, and the receivers and dispensers of the forces of animal and vegetative life. So life might just as properly be said to stand upon four supports as three. But the searching eye of the modern investigator has shown that vitality does not depend upon the integrity of three or four so-called vital organs; but that it depends upon the integrity of many, perhaps of all the glands and viscera, while some of humble proportions and of supposed minor importance have been found to be necessary to the proper performance of some of the highest functions of the animal body.

These statements are of especial significance in the case of the thyroid body, and the marvelous influence which it has been found to exercise upon the nerve centers and through these upon the general metabolism of the body.

In 1856 Schiff found that complete extirpation of the thyroid in dogs was followed by the death of the animal. Death was preceded "by muscular tremors, which may pass into violent spasms and convulsions,

cachexia, emaciation, and a more or less marked condition of apathy." These observations were confirmed by numerous experimenters, and the absence or atrophy was found to bear a distinct etiological relationship to cretinism, myxedema, tetany, and cachexia strumipriva, which appear to be different manifestations of one and the same pathological condition.

The following, from the New York Medical Journal, gives the results of some recent studies by Dr. J. A. Notkin, which were made the subject of a paper read at a recent meeting of the Imperial Society of Physicians of Vienna, and published in the *Wiener Medicinische Blätter*, October 22, 1896. Its bearing upon the therapy of tetany is of great interest :

From early observations of his own he had drawn the inference that the phenomena caused by extirpation of the thyroid gland were divisible into two classes, one being the symptoms of tetany and the other those of myxedema. He thinks it probable that the phenomena of myxedema occur only where there is left some remnant of the thyroid parenchyma capable of performing its functions, also that myxedema is caused by an albuminous principle, thyreoproteid, whereas tetany depends on poisoning with products of metabolism which are not of an albuminous nature. Baumann's thyreiodinin will cure goitre and myxedema, but it has been difficult to assume *a priori* that it would also cure tetany. It appears from data furnished by Fränkel, Kocher, jr., and Gottlieb, that besides thyreiodinin (or iodothyrein) the thyreoid gland contains other specifically active substances.

The author had undertaken an experimental investigation of the truth of Baumann's contention that thyreiodinin would cure all the results of removal of the thyreoid gland. In the first experiment the entire gland was removed from a dog. Two days later there were fibrillar and occasionally clonic contractions of the muscles of the limbs. On that day and on the following day forty-five and sixty grains of thyreiodinin respectively were given to the animal; nevertheless the most pronounced cachexia strumipriva was developed.

The dog was now almost dead, when, by means of a stomach-tube, forty-five grains of Merck's preparation of dried thyreoids were introduced into its stomach. In the evening the convulsions ceased, and on the following day forty-five grains more of the Merck preparation were given. On this day and the next the dog was lively and free from convulsions. Now in the course of two days a hundred and eighty grains of thyreiodinin were given to it, and again fibrillar contractions showed themselves, and there was an attack of tonic and clonic convulsions.

In the second experiment thyreiodinin also proved incapable of causing the subsidence of the tetanic symptoms; indeed, they became more intense under its employment, and even when injected subcutaneously it failed to affect them.

In the third experiment the animal was treated with thyroiodinin beforehand. In spite of this and of the large doses employed after the onset of the convulsions, the dog could not be saved from the severest symptoms of the cachexia. The urine of all the three dogs was albuminous.

From these experiments Notkin concludes that thyroiodinin is incapable of overcoming the phenomena of tetany; however, he did not use Baumann's own preparation, and this may account for the difference between his and Baumann's results.

From these considerations it would appear that thyroid gland in substance, in extract, or in the so-called active principle of Baumann (thyro-iodin) does not act alike on every species of the pathological condition induced by absence, atrophy, or disease of the thyroid body. And further, that the small doses in which the various preparations have hitherto been administered must be increased if the full physiological effect is desired.

Notes and Queries.

PURULENT RHINITIS OF CHILDREN.—It is probable that this condition is due to various causes. It is certain that the constant flowing of the discharge over the vocal cords, the larynx, and other portions of the throat, are a constant menace to the welfare of the child, and its continued introduction into the digestive tract may cause an almost unlimited amount of trouble. Not only may it carry infection with it in its course, but there is also the danger of toxins being absorbed into the system.

In these cases the results of prophylaxis are incalculable, not as much in the possible prevention of the condition itself by its prompt and early cure as in the prevention of the sequelæ. These results are both certain and of the greatest consequence. The fact that ozena is the most frequent ending of this condition should be enough to arouse us at once to a realization of its importance.

The diagnosis in any case must be made largely from objective indications. Care must be exercised in differentiating it from adenoids, the third stage of acute rhinitis, from foreign bodies lodged in the nasal canal, a sinus involvement, or from a necrotic process. The history and duration of the condition, age of the patient, whether one or both nostrils are affected, and character of the discharge with a careful inspection, will serve by elimination to establish the diagnosis. In the adult important ethmoidal or maxillary disease would be indicated by a purulent discharge, but not necessarily so in childhood. Careful observance of the well-known rules of hygiene

will do much to both cure and prevent the condition. We must teach the mothers as well as medicate. The "snuffles," so popularly considered an insignificant matter, is the first alarm of a sleepless and unerring sentry guarding the fortress of future health. In the use of local treatment, we recognize in children not only a difference in character and conditions but an especial adaptability as necessary. If it is necessary for us to in a measure adapt ourselves to the varying temperaments of our adult patients, so much the more is such effort necessary in the successful treatment of purulent rhinitis in children. The spray used should always be a mild one. Cleanliness, first, last, and all the time, is a necessity. The author prefers an ordinary alkaline solution.

Some add to such a solution eucalyptus, thymol, or menthol, but better results may be obtained by first thoroughly cleansing the cavities with the above, then introducing some such solution as—

| | | |
|---|-----------------------------|------------------------------|
| R | Eucalyptol, | gtt. v; |
| | Thymol, | gr. ij; |
| | Camphor-phenique, | $\frac{3}{4}$ ss; |
| | Sabalol, | q. s. ad. $\frac{3}{4}$ iij. |

M. Sol. Use night and morning after cleansing with the alkaline solution.

Without a thorough cleansing of the cavities any medicament would be practically useless, as it would scarcely reach the mucous membrane through such a muco-purulent coating.

The author favors the use of the spray rather than the douche, or both, or even the syringe, unless the syringe be a small one and rubber tipped, to prevent injury to the parts. Each, more than the spray, is apt to give eustachian complications. Unless the child be old enough and unusually tractable, post-nasal injections are not advisable.

Ordinarily very marked relief is obtained after a few thorough treatments, and patients are very apt to take the case in their own hands unless they be thoroughly impressed with the fact that persistent treatment is necessary for some time after complete cessation of muco-purulency.—*Dr. J. H. Coulther; in Chicago Medical Record.*

FOOTWEAR IN RELATION TO CATARRH.—The condition of the foot to-day is deplorable, and we are forced to turn to the foot of the child, or the savage, or to that model of the foot of the ancients which has been chiseled on marble, for a perfect classic standard. The natural foot within its leathern prison has been distorted by the tyranny of fashion and the cruelty of restraint. The toes are twisted out of shape, thick projections from the toes at points of contact, clubbed nails, ingrowing toe nails, corns in uncanny situations, and bunions on the joints make the actual foot so far from being a thing of beauty that it is only to be viewed in private by the chiropodist (thank heaven! not the physician). Women are silly in trying to squeeze their feet into small, ill-shaped shoes that respect neither the form nor the mechanism of the foot. High heels are added to this, which

complete the conditions of deformity and discomfort, driving the foot forward, producing a walking-down-hill effect. Such a thing as a natural female foot no longer exists. The instep has been contracted. The well-marked great toe has been partially obliterated, leaving the second one in the lead. The little toe has been pinched and squeezed until it has crouched and retreated like the rudiment of a supernumerary.

The feet of oxen, asses, and horses receive more attention than the human feet, because the proper condition and preservation of the foot of domestic animals represent in value so much coin or bullion.

It is the special development of the great toe that enables man to stand erect and balance himself with greater ease. The further the great toe is spread from the little one the greater prestige is given to the individual, because more leverage is gained. The construction of the pointed-toe shoe is calculated to destroy the God-given leverage of the foot, converging the little and the great toes to a point. In the natural foot the great toe should continue in a straight line from the heel.

The insane vanity of the wearers of shoes combined with the ignorance of the shoemaker have caused to be made a style of shoes that must result in great and lasting damage to our race. The so-called elegant shoes have produced a painful picture of misery, inducing alteration and paralysis of the small muscles of the foot, which has resulted in the loss of the proper elastic step in the walk of many individuals. Compression of the blood-vessels of the foot retards the circulation and prevents the full development of the bones and muscles of the foot, leg, thigh, and pelvis. The stalwart race of yore is being rapidly transformed into a race of spindle-shanks since our people have become slaves of fashion.

Tight and ill-fitting shoes cause depression of spirits, headaches, heart-aches, fainting, general fatigue, bad humor, and loss of serenity. The many fainting spells of women in public have been laid to tight corsets. The truth is tight, ill-fitting shoes are responsible for a large share of this.

Napoleon said he made war not with the arms but the legs of his soldiers. By inspecting the lasts in the Patent Office and in the shops of the shoemakers one is forced to the conclusion that the morbid taste of the age is for the perpetuation of the Spanish Inquisition. The Chinese limit the deforming of the feet to the female sex, but we go one better, and spare neither childhood, maturity, nor old age. The Chinaman wears a serviceable, well-ventilated shoe, with a wooden sole and cloth upper, well suited to the city pavements in hot weather. The Indian moccasin and the baseball shoe meet the natural requirements of the foot better than the solid, unyielding shoes of our times.

Enamel and patent leather is surely the invention of the enemy of the human race. The former consists of calfskin with celluloid finish on the grain side, while the latter has the celluloid finish on the flesh side of the leather. The natural circulation of the feet gives rise to perspiration, which must remain in contact with the foot and macerate and excoriate the

skin, because the patent and enamel leather is impervious to moisture. With our feet cribbed, confined, and confined in tight, ill-shaped shoes having the hermetic seal of the varnish, we are not far above Chinese civilization.

A radical reform in footwear is necessary to secure well-shaped feet, and the nature of the material of which the shoe is made is of the highest hygienic importance. The proper shoe has a broad, low heel and flexible upper and sole. Unyielding canvas lining in shoes prevents the leather from stretching and interferes with the suppleness and elasticity of the foot. I am glad to say that dealers have assured me that the pointed-toe shoe is rapidly being displaced by the round, full-toe shoe; and that of late enterprising tanners have invented a process of tanning by which a soft, pliable, though heavy, serviceable water-proof leather is produced, known as box-calf, willow-calf, and Russian leather. Shoes made of this leather with a heavy double sole and invisible cork sole are now in the market for winter wear. The enameled leather shoe with invisible cork sole and the shoe just described is not suitable for winter wear. In summer it is too hot and devoid of ventilation, and in the winter it is too cold and thin. Shoes made of tan leather are preferable for summer wear, because they permit the greatest evaporation and ventilation.

Sleeplessness from cold feet lead to the use of hot bricks and hot irons to the feet at night, while the cause of the insomnia, viz., compression of the blood-vessels of the feet by tight shoes, bad fitting stockings, and tight garters receives no attention.

Compression of the feet during cold weather is a prolific source of frost-bites and chilblains. Frost-bites are scarcely seen among Arctic travelers and the Eskimo, because they wear reindeer stockings and sealskin boots having a layer of dried grass or straw in the bottom.

Washing the feet frequently does not make them tender, as many people erroneously believe. It really promotes nutrition and the general health, and prevents the formation of corns, ingrowing toe nails, and callosities. Sir Astley Cooper, the father of surgery, who passed thirty years without contracting a cold, attributed this immunity to the daily habit of bathing his feet and entire body, not with warm, but cold water. The best time to bathe the feet is just before going to bed. Water is the cheapest and best deodorant for the feet. Even the most delicate may perform the Dunkard act with benefit and safety by first using warm water which may be gradually cooled by the addition of cold water. Ointments and lotions so much in vogue for the preservation of the feet need only be mentioned to be condemned. Proper shoes and stockings and rigid cleanliness are the safeguards.

Unsuitable footwear is a menace to the proper development of our race. It causes chilling of the surface of the body in cold weather, and excretory function of the skin is stopped. Extra work is thrown upon the mucous membrane of the upper respiratory passages, causing congestion and infil-

tration of it. No wonder about eighty per cent of the American people are afflicted with catarrh, our national disease.

Many persons inquire if their removal to a warm climate would benefit their catarrh. Persons suffering from dry catarrh would be made worse by residing in a dry, warm climate. A rather moist and bracing climate benefits such cases. It would be more prudent to remain in this climate even if one suffers the ill-effect of catarrh of the upper air passages than to go to a tropical climate and die of disease of the liver or yellow fever. "It is better to suffer the ills we have than fly to those we know not of."

Constant chilling of the feet and the surface of the body facilitates the formation of an excess of uric and lactic acid in the blood, inducing the rheumatic and lithemic diathesis, and also causes the development of hyperesthesia of the nasal mucous membrane. These conditions put together frequently result in hay-fever. Persons who work long hours in musty, ill-ventilated rooms are liable to have the rheumatic or lithemic diathesis and catarrh, particularly if bathing and exercise are neglected. Wet feet have been the initial step in the causation of more sickness and deaths than any other agent known to us. The old adage, "Keep the feet warm and the head cool" is the great safeguard of health. Thorough bathing and brisk rubbing of the skin from one to several times a week are essential for prevention and the cure of catarrh. In many cases under my observation, even after the footwear had been properly reformed, it required a long course of treatment consisting of local applications, sprays, cauterization, and operative measures to cure the catarrh.—*Dr. J. B. McCassy, in American Medico-Surgical Bulletin.*

CONGENITAL TEETH, WITH THREE CASES.—After reporting several cases of congenital teeth, and writing most interestingly upon the historical aspects of that subject, the writer expresses the belief that there can be no doubt that congenital teeth are rarely met with. Out of 17,578 new-born infants at the Paris Maternity, between 1858 and 1868, only three had teeth, or not much more than one in 6,000. Out of 500 cases collected by Magitot, in which the time of eruption of the first tooth was noted, in only one were there teeth at birth. In 20,000 births Blot said he had never seen an instance; while, on the other hand, Besnier and Guenoit regarded them as very common. Neither experience can be regarded as usual, and the truth lies doubtless between the two extremes. In the present paper some seventy observations have been gathered together from literature, and doubtless not a few have escaped notice.

After a careful study of these seventy cases the author arrives at the following conclusions:

1. Congenital teeth form a rare anomaly, but one which has long been known both to the profession and to the public.
2. Their presence has often an ill effect upon lactation, partly on account of the imperfect closure of the infant's mouth, and partly by the

wounding of the mother's nipple; sublingual ulceration may also be a result, and infantile diarrhea and atrophy are more distant consequences. Sometimes, however, symptoms are altogether absent.

3. Congenital teeth have probably little or no prognostic significance as regards the bodily or mental vigor of the infant carrying them.

4. The teeth usually met with are lower incisors, but sometimes upper incisors may be seen, and very rarely molars of either the upper or lower jaw. Other facial or buccal malformations may occasionally be met with.

5. They are caused by the premature occurrence of the processes which normally lead to the cutting of the milk teeth; in a few cases it would seem that the anomaly is due to a true ectopia of the dental follicle and its contained tooth.

6. In a few instances a hereditary history has been established.

7. As congenital teeth are usually incomplete and ill-developed, and likely to be more an inconvenience than an advantage to the infant, they are best removed soon after birth, an operation which can be easily and, except in very rare instances, safely performed.

8. The occurrence of premature teeth in certain well-known historical personages is an interesting fact, the importance of which has been much exaggerated.—*Dr. J. W. Ballantyne, in Edinburgh Medical Journal.*

THE ANTAGONISM BETWEEN CHLOROFORM AND HYDROCYANIC ACID.—Professor Hobday, in an article in the *Journal of Comparative Pathology and Therapeutics*, recounts a number of experiments made to determine the antagonism of hydrocyanic acid and chloroform. In the lower animals, chloroform kills by narcotizing the respiratory center, of which hydrocyanic acid is a very rapid excitant. In the first series of cases, in which respiration had ceased through the action of chloroform, Scheele's acid was injected subcutaneously, and artificial respiration resorted to. Professor Hobday is convinced that the use of the acid is a most important adjuvant in resuscitation. In the second series the antidotal power of chloroform in prussic-acid poisoning was shown.—*Medical News.*

IN HUXLEY'S MEMORY.—A memorial very fittingly conceived and carried out by some of the friends of the late Prof. Huxley will henceforward be a mark which English travelers in Switzerland will strive to attain. On the shores of Sils Lake at Maloja, in the Engadin, a spot which was to Huxley what Asolo was to Browning, a huge block of granite has been engraved with the following inscription: "In memory of Thomas Henry Huxley, the illustrious English writer and naturalist, who passed many summers at the Kursaal Hotel, Maloja. Erected 1896."—*British Med. Jour.*

MONTENEGRINS' POWERFUL VOICES.—The Montenegrins are gifted with probably the most powerful voices in the world. The distance across which they can shout is extraordinary, and they are in the habit of carry-

ing on ordinary conversations across a tract of country which the utmost shouting of an ordinary man could scarcely traverse. A few years ago, when a murder was committed near the Austrian frontier, the news was carried throughout the entire country, and the army was mobilized within a couple of hours, simply by shouting the news from cliff to cliff and from town to town, with the result that the murderers were quickly caught. *Medical News.*

THE COCAINE HABIT IN NEW ORLEANS.—A druggist of New Orleans gives, in the *Picayune*, the following account of the use of cocaine by the native darkies: "How on earth these ignorant people ever learned of the effects of this powerful and dangerous drug I am at a loss to say, but I know it as a fact that some drug stores in this city sell enormous quantities of the stuff to the darkies in five-cent packages. The demand for it is so great that they keep the stuff in little papers which they retail at five cents, and it is quite frequently the case that the darky doesn't even open his mouth to say what he wants, the trade is so well established. He simply goes into the drug store, throws down his nickel on the counter, and is given a cocaine package without his ever opening his mouth, just he would slouch into a beer-joint and get a glass of beer." Such an abuse should receive the prompt attention of the Board of Health.—*Ibid.*

PRIMITIVE OBSTETRICS.—Dr. Howard A. Kelly, in quoting from an address of the late Dr. Edward R. May, of Wilkesbarre, Pa., says that Dr. May had never seen or owned an obstetric forceps, but that, when he had a case on which one would have ordinarily used forceps, he incised the fetal scalp with scissors, inserted the index finger between it and the calvarium, and extracted the child. Many baldheaded citizens of that region carry cicatrices as a memento of this primitive obstetrical method.—*Maryland Medical Journal.*

FOR PRURITUS VULVÆ.—

℞ Chloral, 3ij;
Bismuth subn., 3ij;
Aq. rosæ, 3iv.

M. Sig.: Apply locally.

FOR GOITRE.—Dr. C. Galre has had good results from the parenchymatous injection of one fourth to one dram of a mixture thus composed:

℞ Iodoform, 1 part;
Sulphuric ether, 7 parts;
Ol. olivæ, 7 parts.

—*Med. Bulletin.*

THE BUBONIC PLAGUE.—A virulent bubonic plague is prevalent in many parts of the Bombay Presidency, from which upward of a hundred deaths have already resulted. There are only sporadic cases of the plague now in Hong Kong.

Special Notices.

NEUROSINE VS. MORPHINE.—POSTIVELY NO MORPHINE IN NEUROSINE.—Neurosine is the most powerful neurotic attainable, quieting the nerves and producing natural sleep. Physicians should never prescribe or recommend any product which the laity could obtain from the druggists to produce sleep that contains morphine. There is hardly a day but what fatal results occur (to those using stimulants to excess and other causes) who resort to neurotics to steady their nerves and produce sleep. It is hard for one to believe that manufacturing chemists would be so unprincipled as to compound morphine without indicating same in formula. The Dios Chemical Company of St. Louis, manufacturers of neurosine, publishes the formula complete, which is composed of the following well-known and tried drugs: Chemically pure bromides of potassium, sodium, ammonium, zinc, extracts of henbane, belladonna, lupuli and cascara sagrada with aromatic elixirs.

DR. LAWRENCE'S TREATMENT FOR ACME PUSTULOSA.—Miss Lizzie F. was having a constantly recurring eruption of acne vulgaris, which commenced with dark red papules, which became pustular and caused pain on the least pressure. They would open, and after their contents were evacuated, would form scabs with the core still there. Sometimes the core would be discharged and healing would take place rapidly. She had no menstrual or uterine disorder, which could possibly aggravate it, and it was just as bad between periods as at the catamenia. I used mercurial and sulphur ointments without success, and really concluded to give the case up until I tried Pineoline with such gratifying results. Two boxes were enough to cure the case, and I had her apply the third box for the purpose of insuring the cure. She had no relapse after two months.

ADHESION OF PLACENTA, WITH HEMORRHAGE.—I had a bad case of adhesion of placenta, with dangerous hemorrhage. With Ergot and Sanmetto the danger was at once removed, and by continued use of Sanmetto, patient, although very weak from loss of blood, improved rapidly, and is now up and about the house helping about her work. In sixty years practice, with an attendance upon more than three thousand childbirths, I have used no medicine that seemed to hit the case better than Sanmetto in this instance. I am now in my eighty-seventh year and have practiced since 1832.

S. G. MATSON, M. D., Viola, Iowa.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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No. 2.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

TEXAS FEVER.*

BY F. T. EISENMAN, M. D., D. V. S., *Veterinarian*, AND JOHN E. CASHIN, *Bacteriologist, State Board of Health of Kentucky.*

My reason for bringing this subject before you is that Texas fever having recently excited some local attention, and being a disease which receives little attention except from veterinarians and comparative pathologists, I thought it possible that you might be interested by a short account of the history, the symptoms, and latest views of the pathology of this very remarkable affection.

First, let me mention very briefly the prominent symptoms of the disease and the appearance of the organs after death. The normal temperature of the healthy cow in hot weather varies from 100.5° to 102.5°; respiration from 20 to 40, pulse from 60 to 80 per minute. In animals with Texas fever of the severe type the thermometer registers 104° or 105° F. during the first twenty-four hours of the disease; reaches the highest point, which is usually 106° or 107° F., on the following day, and then runs steadily high until death or convalescence. A diagnostic sign of great value is the presence in the urine of dissolved blood-coloring matter—a hemoglobinuria—the "red water." This was seen in the bladder of all the fifty cases we have examined. The animal assumes a characteristic, humped position, does not ruminate, is usually constipated, and the muzzle is dry. Partial or complete suppression of milk secretion very quickly occurs. As the disease progresses the animal sinks to the ground; flies swarm upon the body

* Presented, with specimens, to the Falls City Medical Society, of Louisville, by Dr. Cashin.

unnoticed. Jaundice is not uncommon in milch cows and fat cattle. The abdomen bloats, respirations become rapid, the pulse accelerated and weak, and death supervenes in from twenty-four to forty-eight hours after signs of serious illness have been noted. Acute Texas fever runs its course very quickly. We have not been able to make any close observations upon the duration of the disease, but it is put down by writers as from eight to ten days, dating from the initial rise of temperature. This is a sketch of the prevailing type of fever during the hot days of midsummer. In the early spring and late fall a milder type is most common, and animals may be ill thirty or forty days. The symptoms of this mild type are more or less fever, loss of weight, impaired appetite. We have not seen hemoglobinuria.

At the autopsy in acute cases there is usually dryness of the skin and subcutaneous tissue, but occasionally edema is seen on the belly, due to a weakened heart. There are very commonly ecchymoses on the pericardium; the heart muscle is healthy in appearance, or may show fatty degeneration. The spleen is enlarged and softened; the cut surface has a dark reddish-brown color, and the normal markings are lost, its weight increased three or four pounds, owing to the accumulation of blood in it. The liver presents characteristic changes, gross and microscopical. There is enlargement, due to congestion, with fatty degeneration of the hepatic cells. Bile stasis, due to a plugging up of the ultimate bile canaliculi, gives to the liver a yellow, mottled appearance met with in no other epidemic affection of cattle. The kidney is congested, the bladder distended with dark red urine. The gall-bladder is distended with bile much darker than in health, and contains mucus in abundance. There are no important changes in the stomach and intestine.

In healthy cattle the red blood corpuscles number about 6,000,000 per cu. m. In Texas fever all observers have noted the remarkable thinness of the blood. Deep incisions bleed slightly, or a pale, bloody serum fills the wound. It has been shown by repeated estimates with the Thoma-seiss instrument that in severe cases 1,000,000 red blood cells per cu. m. may be destroyed or withdrawn from the circulation in forty-eight hours or less. The loss of circulating corpuscles continues, and in fatal cases is often carried to such an extent that estimates show hardly more than 1,000,000 per cu. m. This destruction of blood is the phenomenon from which the hemoglobinuria, jaundice, and the changes in the liver take origin.

Texas fever, it will be seen, resembles in one pathological aspect the malarial fevers of the human subject; and, like these fevers, it is a blood infection. Theobald Smith in 1889 discovered an endoglobular body in animals with Texas fever, and proposed for this micro-organism the name *pyrosoma bigeminum*. This micro-organism, as seen in the blood of acute cases during life, occurs in pairs (sometimes singly) within the red blood cell, is pyriform in outline, devoid of pigment, homogeneous, from 2 to 4 μ in length and 1.5 to 2 μ in width at the widest portion. It stains with hematoxylin and methyl violet, but is best colored with Löffler's alkaline methylene blue and then treated with dilute acetic acid. It can also be seen in fresh unstained preparations. Five or six hours after death these pyriform bodies are seen to have become rounded. The inference is that they have assumed this shape under the adverse conditions brought about through the death of the host. It is often very difficult to demonstrate this organism in the blood during life; it may be few in number or entirely absent after the corpuscles have sunk very low, yet on *post-mortem* examination sometimes fifty per cent of the corpuscles in parts of the body will be found infected. Infected corpuscles in all cases are most abundant in areas of stasis, in the omentum, pia mater, kidney, and heart muscle.

As before stated there is a severe and mild type of Texas fever; and it is the micro-organism of the former that we have just described. The mild or autumnal type is characterized by the presence of an endoglobular parasite rounded in form and from .2 to .5 μ in diameter. Smith states that from five to fifty per cent of the red blood corpuscles may be infected with this form of the parasite during the entire course of the mild disease, a period of from two to five weeks.

It is true that changes in the red blood cells occur in all intense anemias; and it might be urged that the appearances of the cells which we show you might be due to changes in the protoplasm of the cells themselves. But we have accepted the view that these bodies are living organisms which invade and destroy the corpuscles.

It has been known for many years that apparently healthy southern cattle brought during warm weather into districts north of the thirty-seventh parallel infected the ground over which they passed; that after isolation for a short time on northern pastures these cattle became harmless, but if placed immediately upon fields with northern cattle the natives in from thirty to sixty days began to die of Texas fever, the strangers remaining in good health.

Dr. D. E. Salmon, twenty years ago, discovered that the territory from which these infective cattle were brought corresponded very closely with the home of a species of cattle tick; and that in midwinter, when it was impossible for these ticks to multiply on northern fields, cattle could be brought with impunity from southern points. The relation of this tick to Texas fever and the microparasite thereof is one of the most curious and interesting developments in animal pathology. A brief account of the life history of this tick will therefore, we hope, prove interesting. An adult female tick will lay about 2,500 eggs. You will observe those which have finished laying lie in the bottom of the box, shriveled and dead; in another a stream of eggs is seen issuing from the mouth parts. The eggs are of a brownish color, about $\frac{1}{16}$ of an inch long, and $\frac{3}{16}$ of an inch wide. The period required for hatching varies from two to six weeks according to the temperature. The tick is an essential parasite, and after hatching undergoes but little development unless it finds a host. They possess considerable vitality, however, and may live three or four months upon the ground unless the temperature falls below the freezing point. After attaching itself to a host the young tick becomes sexually mature in two weeks, and about that time each female is seen to be provided with a male. The female after impregnation slowly enlarges until about the third week, when she loosens her hold and falls to the ground, where the laying of eggs begins in a few days. The life of a single generation of ticks therefore, dating from oviposition to death, is from forty to seventy days. The tick does not migrate from one animal to another. Disease does not follow introduction of infective cattle until a new generation of ticks appears. If this new crop finds its way upon susceptible cattle, or be placed there as an experiment, fever follows, and often ends fatally before the tick is large enough to be seen on the body without very close inspection. Whether or not at any period of its life the tick loses its power of inducing Texas fever has not been determined. There is no certainty as to whether the body which has been described as invading and destroying the red blood cell belongs primarily to southern cattle, and is drawn from their blood by the tick, or whether it is primarily of the tick itself. It can not be found by examination of the blood of tick-bearing but to all appearances healthy southern cattle, yet injection of the blood of these animals even after they have been free of ticks three or four months give rise to Texas fever. The micro-organism is resident, most probably, in small numbers in immune southern cattle, and the tick acts merely as a carrier of infection.



TEXAS FEVER PARASITE.—*a*, Unstained, found during early period of acute type. *b*, The same, stained with Löffler's methylene blue. *c*, The micro-organism as it appears after death. *d*, Stained bodies found in mild and chronic type of Texas fever.



Abnormal red blood corpuscles seen late in the course of acute Texas fever.

The cattle tick (*boöphilus bovis*) infests various animals. We have seen them very numerous on the pectoral region and in the ischio-rectal fossa of horses and also on dogs. These animals are not affected by their presence, but they may carry the tick, and it would be reasonable to assume the disease, from place to place.

The point of transmission of the microparasite through the egg of the tick has been most difficult to accept. But as no one has explained the destruction of red blood cells by some hemolytic product of the tick itself, or by any other agency, this conclusion in the light of experiments made can not be avoided. A definite chemical substance would not, it seems to us, be produced in sufficient quantity by a few ticks to bring about in three or four days the profound changes of Texas fever, nor would it remain three or four months in the circulation of tick-free cattle.

The diagnosis of Texas fever offers no special difficulties to the expert. An elevated temperature, presence of the fever-bearing tick, and hemoglobinuria are signs of great diagnostic value. If an autopsy be held upon an acute case there is not much danger of confounding this with any other affection. Blood examination, including an estimate of the number of red blood cells per cubic meter, is all important in the detection of both the acute and chronic forms during life. The presence of bodies with the red blood cells, or, if the endoglobular body can not be found, marked reduction in the number of corpuscles with degenerate forms in connection with the clinical history makes a quite distinct picture. We have found blood examinations of much value in differentiating between Texas fever and anthrax, both of which prevail in this region.

The discovery of the relation of the cattle tick to Texas fever, and that without it outbreaks do not occur, has been of immense value to the cattle industry of our country. Accepting the axiom, "No ticks, no fever," the prevention of the disease has resolved itself into a crusade against the peccant tick. By Federal regulation all points south of a line which is made to vary from year to year but corresponds approximately to the 37th parallel of latitude, excepting along the eastern slope of the country where it extends half way between the 38th and 39th parallel, is declared permanently infected by the specific cattle tick, and it is forbidden to bring cattle north of this line except for immediate slaughter between March 1st and December 1st of each year. Separate pens must be provided for them in all yards, so that no

native susceptible cattle pass over ground they have used. Cars must be placarded "Southern Cattle," and after being unloaded disinfected with chloride of lime. Veterinarians employed by the Bureau of Animal Industry are stationed at all yards receiving these cattle in order that the quarantine may be properly enforced. Of the value of this quarantine we have had recently a very good practical illustration. Prior to 1896 we had an inefficient quarantine system and Texas fever was of almost annual occurrence; in 1895 about two hundred and fifty cattle died of Texas fever in the dairies near Louisville. During the past season, under more rigid quarantine, there has been one outbreak. This occurred among cattle brought in before the system was in force.

In speaking of the treatment of Texas fever very little can be said. The use of purgative medicines in diseased states has a very strong hold upon the human mind, and there are few affections in which they have not been resorted to at some time with the pious hope that good would follow. They are thoroughly and industriously given in Texas fever, but without a curative or modifying influence of course. We have used quinine and methylene blue, the potent remedies in malarial disease, but nothing was accomplished. Texas fever is easy of prevention, but difficult of cure.

LOUISVILLE.

INJURY TO BRAIN; OPERATION; RECOVERY.*

BY D. B. BOWEN, M. D.

The patient is a male, thirty-six years old, who on the thirteenth day of June, 1896, sustained a compound complicated fracture of the skull, while engaged in a row, by his assailant striking him on the left side of the head with the eye of a hoe, just above the temporal ridge in the parietal bone at about sixty-seven degrees from glabella to occipital protuberance.

Dr. S. J. Willett, of Stephensburg, was called immediately, diagnosed fracture, and telephoned me to come at once, prepared to operate. On arriving doctor gave the following history: J. R. J. was struck on the left side of head with hoe, which felled him, remaining unconscious for five or ten minutes; rose to his feet and walked to office about forty or fifty yards, assisted by the doctor. On examination found skull fracture at point designated, pulse quickened, breathing regular, pupils normal, total paralysis of right arm, tongue thickened, temperature 97°.

*Read before the Southern Kentucky Medical Association at Mammoth Cave, October 7-8, 1896.

We removed him about one and a half miles in a buggy, and he was able to walk by the assistance of two from the buggy into the house. After the instruments had been boiled and every thing had been made as aseptic as was possible (head was shaved), an open porch, six by fourteen feet, was selected for place of operation. We put him on table at about three and one half hours from time of injury, after thoroughly scrubbing the entire scalp with, first, Johnson's ethereal soap, then with bichloride of mercury 1 to 1,000. Placed around head towels wrung out of solution of bichloride.

I now extended the external wound of scalp, which was a crucial one, to the extent of about four inches antero-posteriorly and the cross section to three inches. On dissecting flaps back sufficiently I found a concavity about one half to three quarter inches in depth, the base of which was about one and one half or two inches in its diameters. The edge of the bone was cracked and holding on to the surrounding skull, the concavity presenting a comminuted appearance, but nowhere was a spiculum of bone completely detached. Not having a trephine large enough to cover wound, with elevator and gouge I, after some effort, got away a piece of bone at the apex of concavity of external table. After the removing of the first piece I had no trouble in detaching the rest, sixteen in all. There was a spiculum of the inner table driven just at the apex of concavity directly down through the fissure of Rolando and into the Sylvian fissure, as evidenced by the paralysis of tongue. I found the meninges were lacerated and torn to the extent of the base of the wound, also found a blood-clot the size of a hen's egg; on scraping the clot out with my finger the middle meningeal artery spurted through opening into my face. I had no trouble in ligating this artery. I now removed the spiculum of inner table which was driven about an inch and a half into the brain; on removal of this piece the brain substance poured out of the hole as it sometimes does in a gun-shot wound of the brain. After scraping the detached brain from the wound with my little finger I found that around the edge of puncture the brain was contused and congested; I curetted the wound, thoroughly removing all brain tissue that was at all contused and likely to act as a foreign body or cause septic trouble, removing in all about one half ounce of brain matter. I trimmed the edge of skull around base of wound, biting off where it was necessary with forceps, and with a Volkmann spoon dressed the entire edge all the way round. After washing with a solution of bichloride 1 to 10,000, then with sterilized water, I packed the

wound in brain with iodoform gauze, bringing it out at most dependent portion. The dura was so lacerated I was unable to bring it together by suture, and had to trim it off to correspond pretty well to the size of opening in skull. I thought best not to attempt supplying dura with pericranium, as the wound was so extensive and I did not care to prolong the operation. The wound in scalp was coapted by interrupted silk sutures, leaving the gauze drainage at most dependent part. The dressing consisted in, first, dusting the entire scalp with iodoform and boracic acid; second, a thick layer of iodoform gauze; third, a very heavy layer of sterilized gauze; fourth, a layer of absorbent cotton; fifth, roller bandage. The operation lasted about thirty or forty minutes. The patient had an involuntary action of the bowels while under the influence of chloroform; he had had an acute attack of diarrhea for four or five days previous to injury. The dressing was removed the third day, and the gauze drainage very slightly drawn out to the extent of one half inch, the second dressing similar to the first. The sutures and drainage removed at the end of week, the wound washed out with 1 to 10,000 bichloride, followed with sterilized water, a new gauze drainage inserted to the depth of one inch; the scalp wound united by first intention save where the drainage came through; at the end of ten days the drainage was removed, the edges of the scalp wound freshened, and closed by sutures which healed promptly.

The case went entirely through without a drop of pus or purulent discharge. There were for one week total paralysis of right arm and leg, after which the leg became of some use to the patient, but the power of co-ordination was completely gone, but after his foot had been placed he could bear his weight upon it. After the third week his leg became thoroughly under his control, but his arm remained motionless, and an attempt to try to move the arm would cause an aching pain in the wound in his head. During the fourth week his arm began to make a few involuntary movements, mostly the action of the biceps, and motion gradually returned in all the muscles of the arm, and now he is able to close his hand lightly but not able to close it with any force. The strange thing to me is that he has gone this long without any symptoms of fungus hernii cerebri, which the books teach us are so likely to follow an injury of this extent to the meninges. Our patient has as much sense as he ever had, and is now gaining so rapidly we think he will be as well as before the injury.

NOLIN, KY.

MALARIAL FEVER.*

BY J. S. LEECH, M. D.

In presenting this paper to the society it will be my aim only to point out some of the most common and recognized causes of the production of this variety of fever, as tabulated by the authorities on this subject. I especially ask your attention to the quotation from A. Laveran, who is the recognized discoverer of the parasite that produces malarial infection, and which is constant in this fever. The causation involves a special morbid agent commonly called malaria. The existence of a special cause is inferred, as it is confined to special localities that are called malarious, and from the fact it is controlled by remedies having a specific effect.

Malaria is usually the product of vegetable decomposition, but not necessarily so, as it is known that other causes are necessary to produce it, as is shown by the fact the disease is indigenous in certain localities, whereas in other localities where the decomposition is rife we do not have it. It is a disease most likely to flourish in a marshy and low, wet district; and as you near the equator from the temperate zone it is more prevalent. The amount and prevalence of malaria are determined by the season. In our latitude, as a rule, for spring and early summer we are more apt to have it in May and June, while in the autumn September and October are the months in which it is most prevalent. Even in the tropics where the parasite is in his element all the year it is shown that the disease is most prevalent during the autumn months, showing conclusively that a continued high temperature is favorable to its production. In order for the germ to be produced it is necessary to have a daily temperature of 60° F. for two months accompanied by moisture and decaying matter. Its development is arrested when the temperature is reduced to 32° F.

One author claims that malaria is produced or eliminated from beds of stone, and it has been shown that a once healthy locality would become malarial after the soil had been turned up. The germ in its natural element, the air, before being taken into the system, is not tangible, nor can its presence be ascertained in any way other than by living in the infected district, becoming impregnated, and illustrating its presence by a good shake. Once infected, however, the parasite may be

* Read before the Southern Kentucky Medical Association, at Mammoth Cave, October 7 and 8, 1896.

detected in the blood by means of the microscope, as shown by Laveran and others. In *The American Text-Book of Applied Therapeutics*, 1896 edition, we have a most able article on the subject of malarial fever.

In 1880 Laveran says: "I described a parasite which has since been found by a large number of observers in every country in the blood of patient suffering from malaria, and which all are now agreed in considering as the pathogenic agent of this endemic disease. The parasite appears in several different forms, all of which, however, can be classified into four (4) types, as follows: (1) Spherical forms; (2) flagella; (3) crescentric forms; (4) segmented or roset forms," a detailed description of which you will find on pages 554-557 of his book.

The presence of these parasitic elements is constant in the blood of patients suffering from malarial infection whenever the conditions are favorable for observing them. They are found in the greatest number during the febrile paroxysm, and more particularly at its commencement. They disappear rapidly from the blood after the administration of quinine, and are never observed ~~except~~ in cases of malarial infection. Sometimes the blood of the same patient contains all the forms described; sometimes only one or two varieties are seen. The first, or spherical bodies, are those most frequently met with. Several observers admit the existence of two or three or even five species of parasites, each giving rise to a different clinical form of the disease. I am myself not of this opinion, but think, on the contrary, that the parasitic elements described, in spite of the variety of forms under which they are seen, ought to be considered not as belonging to different species, but rather as representing successive states of one and the same polymorphous parasite.

And now a few words upon the treatment of intermittent fever. During the paroxysm the patient should, in the cold stage, be well wrapped in blankets with bottles of hot water applied to the body and extremities, and allowed to drink hot drinks of his own or his physician's selection. When reaction has taken place the body may be sponged if thought advisable.

Quinine should now be given, but with due care as to time and quantity. It is to this that I wish particularly to call attention, for on it depends your success in treating intermittent fever. I believe if during the hot or sweating stage you give your patient twenty to forty grains of quinine by the mouth at one dose, with a hypodermic injection of morphine $\frac{1}{4}$ gr., atropia $\frac{1}{16}$, you will prevent to a certainty the

return of a second paroxysm; at least that has been my experience for the last ten years. I have not found it necessary to give any preparatory treatment, nor have I found it necessary to give any other medicine or to repeat the dose a second time, and my patient is well before the time has come for him to begin to take quinine according to the treatment most usually employed. I often see a patient who has had several chills before he applied to me for treatment. On inquiry I find they have been taking quinine by the universal direction of 2-grain quinine capsules every two hours until ten or twelve are taken. "But, Doctor, I was sure I did not have any fever when I began to take the medicine, and I was careful to wait until it was all gone." To this patient I will give most usually an alterative with directions to wait until he has another chill, and then I treat him as above.

GLASGOW, KY.

ANEMIA.*

BY RICHARD GARNETT, M. D.

My attention has been drawn to the study of the subject under consideration by several things, chief of which was the fact that of late quite a series of cases have come under my observation, and in the course of my researches I found that literature on the subject was not very plentiful nor easy to find. I am of the opinion that the subject is one of great importance and receives far too little consideration at the hands of the profession at large. You are all familiar with the treatment as laid down in our authorities, so I shall merely in a cursory manner call attention to them.

It is usual to look upon anemia as a disease *per se*, but my observation has been that in the large proportion of cases it is merely a condition consequent upon some disordered state of the system. The very definition, as given by Prof. Flint, will naturally lead us to so look upon it, for he says, "A morbid diminution of the red corpuscles of the blood constitutes anemia." We may safely say, then, that any disease that will produce this diminution of red globules will result in the condition known as anemia, and their name is legion. The simplest form of anemia is that brought about by continued or repeated hemorrhages. In these cases the lost fluid ingredients of the blood are very quickly

*Read before the Southern Kentucky Medical Association, at Mammoth Cave, October 7 and 8, 1896.

replaced; but the red corpuscles are manufactured and supplied more slowly, and hence anemia results, but quickly yields to nutritious foods when the cause is removed. We have all seen this class of cases illustrated in the case of wounds or menorrhagia or *post-partum* hemorrhage.

The next simplest class of cases are those produced by any cause that involves a diminished supply of nutritious elements that may be assimilated by the system. We see this illustrated daily in our larger cities by those who from their circumstances or from their unsanitary surroundings have subsisted on food that is either insufficient in quantity or is lacking in the nutritive elements that are imperatively demanded by the animal economy.

The last class of cases to which I shall refer are the most unmanageable and most unsatisfactory of all, and are brought about by any cause which produces a loss of the constituents of the liquor sanguinis on which depend the production of the red corpuscles of the blood. This is the class of cases which, unless we can strike upon some happy process by which we can eliminate the cause, goes progressively onward into the pernicious form and is soon beyond our reach. We will take up for a brief time the diagnosis, and then pass on to prognosis and treatment.

The patient appears before us, pallid, with bloodless lips, dull apathetic eyes, and anxious countenance. We examine the pulse and find it weak, sluggish, and easily compressible; we find the tongue pale, flabby, and somewhat slow to respond to the will of its owner. We take his temperature, and find it at or below normal (if early in the trouble). We find the skin cool, and the extremities especially cold. We find the heart action easily disturbed either by bodily exercise or by mental worry. We find by a short series of questions that the mental powers are somewhat languid and the vital functions sluggishly performed.

Examination of the urine usually gives negative results, except, probably, a low specific gravity from lack of urea, and it may also be found unusually clear from a deficiency of pigment. We almost always find some kind of nervous phenomena exhibited, either great mental anxiety in regard to health, great irritability of temper, a feeling of debility, a great reluctance to muscular exertion or some hallucination or dread. We find some history of palpitation, dyspnea, and a tendency to faint on slight fatigue. Atonic dyspepsia is often present, and is by some considered to play an important part in its causation. Anorexia is

usually present. Emaciation is rarely found except in the latter stages of the pernicious form. Hemorrhage from the mucous membranes is quite frequent in this type. Petechia, vibices, and ecchymoses are often found in the latter stages. When the pernicious form is suspected we should always resort to the ophthalmoscope, when we will frequently find small yellowish, reddish, or black spots, or else clouds or streaks on the retina. These sometimes cause sudden blindness.

If you will have your patient stand with his head turned as far to the left as possible without turning the body, you will probably be able to detect with your stethoscope the anemic murmur at the right of the sterno-cleido mastoid muscle at the base of the neck. This is commonly called the venous hum, or, as the French have it, "*bruit de diable*." We may be able also to detect the bellows murmur at the base of the heart and in the larger arteries.

After this brief sketch of what we may reasonably expect to find, the question of prognosis arises. If we could exclude the pernicious form then I should say that you may safely give a favorable prognosis; if not, then I should say let your prognosis be very guarded or else unfavorable.

The treatment is clear-cut and plain along certain lines and we have the following indications to meet: First discover if possible and remove the cause; next institute measures to restore the normal quantity of red globules in the blood. This may generally be accomplished by first instituting a course of nutritious diet, and of this meat should form an important part; secondly, stimulants and general tonics should be given to stimulate the digestive functions to greater activity; thirdly, some preparation of iron or iron and manganese should be exhibited as a special remedy. Of late years I have been especially partial to a preparation known as peptomangan (Gude), which has given me some fine results.

The last, but by no means the least, indication in the treatment is to see that our patient has abundance of out-door exercise administered in such a way as to excite in him a personal interest in what he is doing, and thus get his mind off himself and his troubles. If country girls or boys, give them the chickens or the pigs to look after and feed, but if your patients be in town send them to the country where they can forget self in some out-door task.

A close adherence to the course outlined above will almost always restore health and vigor to our patients if suffering from either of the

first two forms of anemia, but if it prove to be of the pernicious type we may fully and confidently expect to see our patients gradually and almost imperceptibly slip from our grasp, until finally they sink into the grasp of Death.

GLASGOW, KY.

Reviews and Bibliography.

Medical Jurisprudence, Forensic Medicine, and Toxicology. By R. A. WITTHAUS, A. M., M. D., Professor of Chemistry, Physics, and Hygiene in the University of New York, and TRACY C. BECKER, A. B., LL. B., Counsellor at Law, Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo, with twenty-three collaborators. Volume IV. 892 pp. New York: William Wood & Co. 1892.

"Toxicology" forms the fourth and closing volume of the superb system of Medical Jurisprudence by Witthaus and Becker, and if the former volumes have been awarded high praise, this must be awarded still higher praise. It is elaborate in detail, comprehensive in plan, exhaustive in investigation, and to a very high degree charming in style. A feature especially refreshing is the great care of the author in verifying every statement made of the amounts of poisons taken in cases of poisoning, and the time in which symptoms began to appear. Many examples cited in former works, and which indeed have become stock incidents in the text-books, are shown by the author to lack proper verification. This is in keeping with the scientific spirit of the age, which requires rigid sifting of evidence under the direction of the "philosophical doubt." This is particularly manifest in the discussion of arsenical poisoning. It could have been desired that the author had given definite statistics going to show the proportion of cases in which symptoms come on in a given time from the taking of the poison. This would often enable a decision to be given with almost mathematical certainty in cases where there are a number of victims, as to whether a given poison was used. In a case near this city, occurring a few years since, in which most cruel suspicions were indulged, the writer insisted that in a case where sixty-two persons were poisoned at a wedding dinner, and yet the symptoms came on in not one single case in less than three hours, it was absolutely impossible that the poison could have been arsenic or any known mineral poison. In a single case symptoms of arsenical poisoning may come on as late as fifteen hours, but the chances of doing so are perhaps one in a hundred. If the chances are one in two, as in the tossing of a copper, in a billion trials "heads" will not fall sixty-two times in succession, but if the chances were only one, say, in fifty, it is a mathematical impossibility, according to the doctrine of chances, that this one should come sixty-two times in succession. Therefore there never were and there never

will be sixty-two persons poisoned at one time by arsenic and the symptoms be delayed in all beyond three hours. When we come to the author's treatment of opium poisoning we find one page that we can not praise, for we think the bold routine of such treatment deserves bitter condemnation. We believe the battery is commonly used more for show than any thing else, that flagellation and walking are utterly useless and even harmful in any but the mild cases, and so can be dispensed with in all cases; and that beyond thoroughly emptying the stomach and supplying the blood with plenty of water to facilitate elimination, which may well take form of coffee, and the persistent employment of artificial respiration, little else either in the way of medicine or punishment to meet substantially the indications. The author well says: "The brutal treatment of patients described in some reports is neither necessary, serviceable, nor excusable." We would add, let it not be begun and it will not become "brutal." The work is thoroughly indexed and altogether furnishes a volume that could be read with pleasure as well as profit by every well-educated person without reference to calling, and closes a production that every American student of legal medicine must take great pride in.

D. T. S.

The American Year-Book of Medicine and Surgery. Being a yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the Leading American and Foreign Authors and Investigators. Collected and arranged with critical editorial comments by Dr. J. M. BALDY and twenty-eight assistants, under the general editorial charge of GEORGE M. GOULD, M. D. Profusely illustrated with numerous wood cuts in text and thirty-three handsome half-tone colored plates. 1183 pp. Philadelphia: W. B. Saunders. 1896.

The general design of this work, according to the statement of the editor, is to give physicians in a compact form an annual epitome of the new and progressive medical truths or suggestions published during the months of the preceding year, from July to June inclusive. For this purpose both the periodicals of the year and the more important monographs and text-books have been used. It is intended as a summary of medical progress and not a mere literary review of all published matter, and herein lies its true and great worth. It is enough for the physician to have to meet with, possibly read, articles written and published solely for the writer's benefit, and then to have the task of opening his mails with the additional task of disposing of reprints of them, without having them woven into pretentious volumes with the invitation to read them again in however epitomized a form. To the end of securing the selection of whatever may be at the same time new, true, and in the line of progress, men of special training and large acquaintance in the direction of their tasks have been chosen for the several departments. The abstracts have been interspersed with critical editorial comments by the various editors in order that the average reader may not be left bewildered and that useless experiments may not be repeated. In many respects the work is a distinct advance on

any that has preceded it of a similar character. In comprehensiveness and thoroughness of digestion it leaves little to be added; and although called a year-book it is not for the year merely, but for a term coequal with the text-books of the day. It is a work deserving of the most hearty commendation.

D. T. S.

The American Text-Book of Applied Therapeutics. For the use of Practitioners and Students. Edited by J. C. WILSON, M. D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College, etc., assisted by AUGUSTUS A. ESHER, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic. 1326 pp. Price, \$7, \$8, and \$9. By subscription only. Philadelphia: W. B. Saunders. 1896.

This book is written purely from the standpoint of the practitioner, and its design is to facilitate the application of the results of the labors of the investigator to the uses of the practical physician. All the articles have been written by American contributors with the exception of one by Laveran, whose name has become so widely known by reason of his discoveries in connection with that disease, and one by Dr. Rake on leprosy. The arrangement of the work has been based as far as possible on modern pathologic doctrines. The endeavor throughout has been to conform to the title of the work, and to indicate the course of treatment to be pursued at the bedside, rather than to name a confusing list of drugs that have been used at one or another time. The large number of eminent names among contributors is guarantee that the line of treatment advocated is well up to date, though much of it may be subject to criticism on the line of the great diversity of views of treatment yet to be found even among the most advanced. While the book is too comprehensive for a particular review, we do not feel able to pass Dr. Atkinson's treatment of opium poisoning. In addition to endorsing the hypodermic use of permanganate of potash, which is preposterous, he recommends pretty nearly all the tortures of the Spanish inquisition that our laws would allow to be practiced on the hapless patient. There is, however, one oversight that is hardly excusable since the Cuban war began to attract attention: he has failed to recommend the macheté, which, when well applied, never allows a patient to die of opium poisoning. But, all in all, there is one regret that every doctor advanced in years will feel on reading the work, and that is that it did not fall into his hand in the beginning of professional life.

D. T. S.

A System of Medicine. By many writers. Edited by THOMAS CLIFFORD ALLBUTT, M. A., M. D., F. R. C. P., F. L. S., F. S. A., Regius Professor of Physic in the University of Cambridge, etc. Vol. I. 978 pp. Price, \$5. McMillan & Co.: New York and London. 1896.

The reviewer could wish for space sufficient to copy both the preface and introduction of Allbutt's System of Medicine as most effectually answering the purposes of review. They stamp the editor as a philosopher and a thinker, and cause the reader to desire that Dr. Allbutt alone should

be able to complete the entire work. He belongs to the class of men that embraces Quatrefages, Spencer, Darwin, and Lubbock, men whose experiences are gathered on lines of rigid investigations and whose reasoning is transparent and almost as close-linked as mathematics. Due attention is given to showing wherein may lie the fallacies of statistics, and the means of correcting them. These apply, however, to the duration of sickness, the proportion of fatality, its relation to climate, season, and race, and though to a less extent to the result of treatment. "It is impressed upon us in this field, as in all other fields of knowledge, that to pursue knowledge with a consciously utilitarian end before us is to fail even in our immediate ends. It is as true now as it was two thousand years ago, that "wisdom must be sought with a single heart devoted to her love and service, and that even the relief of humanity can not always stand first in our sight." We would venture to add that those who pursue knowledge with a consciously utilitarian view are really to be eliminated as disturbers in the search. If medicine had as little of profit in its pursuit as astronomy, we had by this time doubtless attained much nearer the truth.

Among the contributors to the system are many of the foremost names in Great Britain, which is sufficient to guarantee excellence of the first rank, and of which this first volume gives also ample earnest. D. T. S.

Remote Consequences of Injuries of Nerves, and Their Treatment. An examination of the present condition of wounds received, 1863-65, with additional illustrative cases. By JOHN K. MITCHELL, M. D., Lecturer on Physical Diagnosis, University of Pennsylvania, etc. 245 pp. Philadelphia: Lea Brothers & Co. 1895.

In 1864 Drs. Weir Mitchell, Morehouse, and Keen published a small book upon gunshot and other injuries of the nerves, as observed by them in one of the army hospitals in Philadelphia. In 1872 Dr. Mitchell published a larger work upon the same subject. The present work, by Dr. John Mitchell, a son of Dr. Weir Mitchell, continues the history of such of these cases as could be traced down to the present, and also embraces a few other illustrative cases. As an aid to prognosis in this class of injuries the work can not fail to be of very great usefulness to the practicing physician and surgeon. D. T. S.

The Practice of Medicine. By HORATIO C. WOOD, A. M., M. D., LL. D. (Yale), Professor of Therapeutics and Clinical Professor of Nervous Diseases in the University of Pennsylvania, etc., and REGINALD H. FITZ, A. M., M. D., Hervey Professor of the Theory and Practice of Physics in Harvard University, etc. 1088 pp. Philadelphia and London: J. B. Lippincott Company. 1897.

Therapeutics in America, and in other lands too it is to be hoped, owes much to Horatio C. Wood. Not that he has discovered so many or any great specifics, but that he has led medical thought and medical practice along the lines of reason and well-controlled observation. He has no fads, and is one of the men, too few indeed, whom it would be wise to authorize to make experimental tests with patients, treating an equal number without

and with medicines, and giving us the results of his treatment; excepting from such tests of course such diseases as malaria, syphilis, dysentery, and the like, whose amenability to treatment is known and acknowledged. The great blessings to patients that would result from the lessons inculcated by the authors of this work are especially manifest in the consideration of the degenerative diseases of the nervous system. The lesson of rest is constantly enforced. The following-out of the spirit of the author's teachings would strip the electrical-bath cure and other methods of treating such diseases of much of their profits, but would doubtless much prolong the lives of patients. How much some eminent name is needed, brave enough to call a halt, becomes manifest when it is told that Charcot, in therapeutic despair, spent his last days in exploiting the method of Motschoutkowski of treating tabes by suspension. Taken altogether we do not know of a textbook on the practice of medicine we would prefer to put in the hands of the student.

D. T. S.

Practical Diagnosis: The Use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, B. Sc., Professor of Therapeutics in Jefferson Medical College of Philadelphia, etc. Illustrated with one hundred and ninety-one engravings and nineteen colored plates. 573 pp. Philadelphia and New York. 1896.

Prof. Hare, in this volume, has struck out on a new line, the object of it being to place before the physician and student the subject of medical diagnosis as it is met at the bedside. To accomplish this the symptoms used in diagnosis are discussed first, and their application to determine the nature of the disease follows. Thus, instead of describing locomotor ataxia or myelitis, there will be found in the chapter on the Feet and Legs a discussion of the various forms of and causes of paraplegia, so that a physician who is consulted by a paraplegia patient can in a few moments find the various causes of this condition and the differential diagnosis between them severally. In short it corresponds to the plan of diagnosis by exclusion, an art to which every student is exhorted to attain to, but of which no one has hitherto written comprehensively. It is fit that such a task should fall to Dr. Hare, for one who has told so many what to give should now instruct them when to give also, by enabling them in the most certain way to find out the ailment.

D. T. S.

A Manual of Venereal Diseases. By JAMES R. HAYDEN, M. D., Chief of the Venereal Clinic at the College of Physicians and Surgeons, Columbia University, New York. etc. With forty-seven illustrations. 267 pp. Philadelphia and New York: Lea Brothers & Co. 1896.

In this little volume, designed for the use of students as well as practitioners, the author has aimed to give in a clear and compact form a practical working knowledge of the three principal venereal diseases, together with their complications and sequelæ. The general line of treatment with the formulæ given is that advocated by Prof. R. W. Taylor in his latest work on venereal diseases. The author has well performed the task which he has set himself.

D. T. S.

foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

A Proposed Large Ambulance Demonstration; Proposals of the Hospital Reform Association; Homes for Mentally Defective Children; Jenner Memorial; Arterial Skiagraphs; The Longest Reign; Bacterial Purification of Water.

The St. John Ambulance Association will hold a great ambulance fête and demonstration at the Crystal Palace in May or June next, in commemoration of Her Majesty's long reign, under the immediate patronage of the Royal Family. A leading feature will be the competition open to the centers and classes in the United Kingdom, and there will be a special challenge shield limited to and to be competed for by the railway classes.

The Hospital Reform Association have already arrived at some practical conclusions, but it still remains to be seen how far the managers of these philanthropic institutions will be prepared to accept and give effect to the various recommendations made. If they be adopted, much will have been done to remedy the abuses so often complained of in connection with the out-patient department. The proposals of the Reform Association are as follows: (1) Out-patients should be only such cases as are recommended by competent medical authorities. (2) Only a limited number of new cases—say, not exceeding twenty—should be seen each day by each medical and surgical officer. (3) Patients suffering only from minor ailments should not obtain treatment in the casualty departments; and (4) "letters" or "subscribers' letters" for the out-patient departments should be abolished, and each case should be considered from the point of view of its suitability for gratuitous hospital treatment.

It seems that there are in England and Wales 20,000 children so defective in mental powers that they are incapable, if left to their own resources, of fighting the battle of life. It is now proposed to take steps to provide a home for feeble-minded girls in West London. Dr. Warner, who takes great interest in the subject, says that since 1890 six homes have been started and kept going—the girl inmates helping to support themselves by laundry work and other occupations suited to their capacities. It is hoped eventually to have such institutions in all parts of England and Wales.

At a meeting of the Council of the Hospital Sunday Fund, held at the Mansion House, the Earl of Stafford presiding, it was moved that Sunday, June 20th, being the Queen's Accession Day, should be recommended as

Hospital Sunday next year. The ex-President of the Wesleyan Conference seconded the resolution, which was cordially supported by Cardinal Vaughan and the Chief Rabbi, and carried unanimously.

Sir Joseph Lister, speaking at a recent meeting in aid of the proposed Jenner memorial, said he had long felt that it was hardly creditable to England that while other nations were in different ways celebrating the centenary of Jenner's great discovery, in his own country such was not the case. Sir Joseph thought that it was very natural and very fitting, that now the proposal had been made, that it had emanated from St. George's Hospital, where Hunter and Jenner studied. It has been suggested that the statue of Jenner, in Kensington Gardens, might with advantage be moved to the open space in front of St. George's Hospital, to correspond with the Wellington statue. At the same meeting the Bishop of Rochester moved, "That the present year, being the centenary of the first successful vaccination, is the proper time to inaugurate a work of national utility in honor of Edward Jenner." He said the work of honoring a man like Jenner was not a matter to be left to the members of the profession to which Jenner belonged, but was one of general human and national concern, and if there was any profession which was bound to seize opportunities of going along with the medical profession in a matter of that kind it was the clergy.

Recently Dr. Rau, of Manchester, wishing to examine a fracture which was enveloped in a thin layer of plaster of paris, found that no result could be obtained by using the X rays. From this he thought the vessels (arteries) might be reproduced in the skiagraph, if they were previously injected with a like substance. He injected into a limb post-mortem a solution of calcium sulphate and carmine, and after taking skiagraphs of different parts of the body he obtained pictures showing the arteries perfectly, the most minute anastomoses being most distinct, the vessels even showing through the bones. Dr. Rau has a bromide print of a child showing all the arteries of the body injected.

An influentially attended meeting has been held at the Duke of Westminster's home in London to further the proposal to commemorate the Queen's longest reign by placing the Queen Victoria's Jubilee Institute for Nurses on a permanent basis. The Duke of Westminster, in commemorating the scheme, said it was one which they had the right to assume would meet with the warm approval of the Queen, and one which would be of lasting benefit to the people. Since the meeting the idea has been warmly taken up by many provincial Mayors, and a large sum promises to be quickly collected.

Dr. Percy Frankland, F. R. S., has discoursed to the Institute of Civil Engineers on Bacterial Water Purification. The discussion which followed centered round the importance to be attributed to Koch's arbitrary standard that a so-called "good" water should not contain more than one hundred microbes per cubic centimeter. Dr. Frankland pointed out that this statement of Dr. Koch's was made in the infant days of bacterial investigation,

and no serious meaning could be attached to it now. He reminded the assembly that many years ago he showed how, on keeping a sample of the very purest drinking-water obtainable, the original microbes present could increase to hundreds of thousands, and that yet no one would venture to condemn this water. Dr. Percy Frankland described some experiments he made recently with typhoid germs, in which he had introduced some of these microbes into deep well water, which was almost free from bacteria, into Thames water, which contained a large number, and into Loch Katrine water, in which the number was intermediate between these two. He found that the typhoid bacilli died off more rapidly in the Thames water than in that from Loch Katrine, while they persisted longest in the sparsely-populated deep well water. Thus the longevity of these disease germs was inversely proportional to the bacterial population of the waters into which they were introduced.

Ireland has now adopted the anthropometric system for the identification of habitual criminals. The system is now working successfully throughout the United Kingdom.

"All Irishmen," said Lord Roberts, unveiling a Dublin statue to Surgeon Major Parke, who was with Stanley in Africa, "should be proud of Parke, who was brave, modest, full of resource, a genial companion, and most lovable."

LONDON, December, 1896.

Abstracts and Selections.

THE RAPID CURE OF GONORRHEA.—It would be worse than discourteous if I omitted to express my high appreciation of the honor conferred on me by your invitation to present a paper to this learned body. The pleasure of preparing it, under these circumstances, lends additional incentive to making my modest work as practical and useful to physicians as lies in my power.

In selecting "The Rapid Cure of Gonorrhea" as my title, I do it to further a cause, to urge a principle, which, however acceptable to patients, has not yet found merited advocacy among practitioners. Many men, thoroughly informed on the pathology of the disease, still hesitate, despite the efforts made by abler workers than I, to accept the facts as experience has proven them.

The erstwhile inconvenience of daily or twice daily irrigations in the physician's office has now been entirely set aside by the apparatus now used for the purpose. Then, too, physicians must contend with the rather firmly rooted superstition, that the abortion of gonorrhea is productive of stricture and other consequences. This may apply when attempts are made

with escharotics, as silver nitrate; but their futility causes them soon to be discarded, to be evoked again when desperation at ill-success drives physicians and patients to any method which may be advanced.

Large irrigations with permanganate of potash, varying to meet the varying bacteriological indications, offer none of the discomforts, none of the sequelæ, which attend either too active treatment or neglect of treatment when it would prove most valuable. Excessively violent treatment has, happily, few advocates, while unfortunate conservatism causes numerous practitioners to mismanage acute clap and the exacerbations of sub-acute and chronic clap as if each were a *noli me tangere*.

This is well portrayed by Guiteras, who ably shows that while giving demulcents, antacids, diluents, etc., physicians, even eminent specialists, practically "wait for the acute symptoms to pass off."

It is this waiting against which modern experience enters a decided, emphatic protest. It is waiting that has caused authors to write down six weeks as the duration of an uncomplicated clap; but, worse than this, it allows infinite multiplication of gonococci. They ascend the urethra, invade the posterior part, the bladder, the epididymis, Cowper's glands, the ureters, the kidneys. In their unchecked proliferation they enter the urethral crypts, glands, and follicles, and the tissues of the urethra itself.

It is this waiting that causes the majority of chronic urethritis, of strictures, and other local disturbances, all equally fraught with danger to the patient's physical and mental welfare.

Drugs given *per os* can not stay their progress; injections *per anum* can wash but few away; neither can so change the urethral mucous membrane as to make it an unfavorable culture medium for gonococci. Indeed this is all that can be accomplished in our present knowledge. Any thing we would use to destroy the gonococci would destroy the tissues and open wide the portals to infection.

But we have a means of rendering the urinary mucous lining a poor culture medium for gonococci. This is in very copious irrigations, by carefully graded hydrostatic pressure. To what extent the drugs employed therewith exercise an effect can not be said. At all events irrigations of hot water alone have by no means yielded the results obtained from the addition of potassic permanganate in acute cases as the same drug alone or with corrosive sublimate in chronic cases.

Some authors hold that much of the effect of permanganate irrigations is due to local oxidation; others attribute it largely to direct chemical changes in the tissues affected, while Goldberg believes that potassic permanganate, when so employed, exerts direct gonococcidal action.

There remains the mechanical view—that the large, heavy pressure of water alone suffices to produce the artificial edema in which gonococci can not live.

Whichever of these theories is correct is not of great moment, until we can have that satisfactory explanation in all matters which is demanded by science.

But dealing with facts, as shown in other papers, we find the hydrostatic irrigation treatment of uncomplicated acute, subacute, and chronic clap to have none of those painful and dangerous complications and sequelæ which supervene under other treatments.

The rapid treatment of gonorrhea, moreover, by quickly converting the urethral mucous membrane into a poor culture-medium for gonococci, offers a barrier to general invasion. So we must judge, at least, from the thousands of cases treated, without one having gonorrheal rheumatism, gonorrheal endocarditis, or invasion of the brain by gonococci.

The local consequences of gonorrhea, too, are thereby avoided. Thus, cases treated by hydrostatic irrigations are not followed by strictures, denuded patches, or any of the other results which wreck the patients' lives. Neither have we any of those terrible risks to innocent women and children.

The foregoing roughly drawn lines suffice, I think, to show that in gonorrhea *tuto, cito et jucunde curare* applies no less than in other diseases.

The method of accomplishing this ever-desirable end has been fully detailed elsewhere. How the above behests are obeyed may merit a few words:

Tuto curare is complied with beyond question. The proof thereof lies in the following tests: A week after all manifestations of the disease have ceased the patient is ordered to drink, on retiring, twice the quantity of beer that was his habit. If within the following thirty-six hours no discharge appears, he is allowed to rest from treatment for a week; then a five-per-cent solution of silver nitrate is injected. If the resulting discharge contains no gonococci, he is again dismissed for a week or ten days. Then a careful urethroscopic examination is made. If this shows only normal mucous membrane, the case may safely be considered cured. Still it may be well to ask the patient to let his next sexual intercourse be with a condom and to bring the semen for examination. If the secretion contains no gonococci we are certainly justified in deeming that *tuto curare* has been obeyed.

As to *cito curare*, Goldberg collated the experience of all authors on the subject, whether they wrote favorably or otherwise. He finds that they obtained sixty per cent of recoveries within ten days, thirty per cent in two to three weeks; five per cent disobeyed instructions regarding the altars of Venus and Bacchus, and five per cent proved failures. These failures are not explained; they doubtless are due to faulty technique. My results since using these irrigations (December, 1894,) show below two per cent of failures. In each of these cases a good explanation can be offered, (*a*) in interruption of treatment, (*b*) in masturbation, (*c*) in coitus, (*d*) alcohol; but even if five per cent were not cured within three weeks (the longest term of all authors), the showing would be better than under any other form of treatment. Thus the requirements of *cito curare* are met.

Jucunde curare is strictly obeyed in the fact that in ninety-nine per cent of the cases *all pain and discomfort cease after the first irrigation.*

Most of these facts have been published before. My inability, however, to write as clearly as I should like, and the time-limitation which necessarily is placed upon papers read before learned bodies like this, cause me to receive perhaps a larger number of letters of inquiry than the usual specialist's share.

The subject-matter may be made clearer by here answering the most frequent of these questions:

1. Time for first irrigation: When the microscope shows gonococci, irrigation should be begun at once. The strength of these irrigations, and whether they should be made only urethral or intravesical, must be governed by the conditions found.

2. Strength, frequency, and place of irrigation: In general, I am in the habit of advising the formulæ proposed by Janet. Their repetition here is with the warning that they must suffer modification according to circumstances.

Acute Gonorrhea. First day, first visit, anterior irrigation 1-1,000. 9 P. M., anterior irrigation 1-4,000. Second day, 8 A. M., anterior irrigation 1-3,000. 7 P. M., anterior irrigation 1-4,000. Third day, 8 A. M., intravesical irrigation 1-2,000. 7 P. M., intravesical irrigation 1-4,000. Fourth day, afternoon, intravesical irrigation 1-2,000. Fifth day, 8 A. M., intravesical irrigation 1-2,000. 7 P. M., intravesical irrigation 1-2,000. Sixth day, afternoon, intravesical irrigation 1-2,000. Seventh day, afternoon, intravesical irrigation 1-2,000. Eighth day, afternoon, intravesical irrigation 1-1,000. Ninth day, afternoon, intravesical irrigation 1-1,000. Tenth day, afternoon, anterior irrigation 1-500; intravesical irrigation 1-1,000.

Chronic Gonorrhea. First day, morning, anterior irrigation 1-4,000. Evening, anterior irrigation 1-4,000. Second day, morning, intravesical irrigation 1-3,000. Evening, anterior irrigation 1-4,000. Third day, afternoon, anterior irrigation 1-2,000. Fourth day, morning, intravesical irrigation 1-2,000. Evening, anterior irrigation 1-4,000. Fifth day, afternoon, anterior irrigation 1-1,000; intravesical irrigation 1-2,000. Sixth day, afternoon, anterior irrigation 1-1,000. Seventh day, afternoon, anterior irrigation 1-1,000. Eighth day, afternoon, anterior irrigation 1-1,000; intravesical irrigation 1-1,000.

3. Concomitants of gonorrhea. It is self-evident that any condition, such as stricture, papillary hypertrophy, epithelial denudations, etc., existing from previous gonorrhea, must be cured before a recovery from acute or chronic urethritis can be expected.

4. Abatement of pain. Pain on urinating is entirely arrested by the first irrigation, or so modified as to make it quite tolerable.

5. Arrest of flow. The discharge is at once stopped, or so diminished that bandages or other protections for the garments become entirely unnecessary.

6. Drugs internally. No hand injections or drugs by the mouth are given. The only exception hereto is a constipated patient, for whom *cas-cara sagrada* is prescribed.

7. No catheter is used for urethral or intravesical irrigations, as it is sure to cover some part of the genito-urinary tract which may contain many foci of infection.

8. Protecting meatus. It is well to keep the meatus covered with absorbent cotton soaked in corrosive sublimate solution 1-6,000.

9. The complications and *sequelæ* of previous gonorrheas do not contraindicate irrigations.

10. The complete apparatus employed for urethral and intravesical irrigations is made and sold for \$5 by F. Alfred Reichardt & Co., 27 Barclay Street, New York.

11. The failures to irrigate successfully are due either to non-observance of the technique, or to the employment of defective rubber tubes. Those made for the apparatus are especially finished within to offer no impediment to the flow.

12. Interval between irrigations. When two irrigations are made daily, twelve hours should intervene, as cited above.

The treatment herein advocated is not proposed on theoretical grounds. I took it up after Felike, of Buda-Pesth, Janet, of Paris, Frank, of Berlin, Brewer and Swineburne, of New York, had proved its efficacy and safety. The success obtained encouraged me to proceed. Not a small dispensary and private practice confirmed the experience of others. Those whom I taught, and those who learned it from what is written on the subject, write me enthusiastic reports, which I hope to publish when the opportunity presents. If any credit at all is due me in this connection, it may be for the combination of Oberlaender's, Kollmann's, and Wossidio's methods with that of Janet, especially in chronic gonorrhea.

At all events the hope which underlies this effort is that physicians will never lose an instant in endeavoring to cure gonorrhea quickly.

I trust that my hearers will test the method herein suggested. Others will follow, as success always has followers.

Then great advance will be made in the treatment of gonorrhea, whose injury to the individual, whose wide-extending influence can hardly be grasped, save by those who give it merited study.—*Fred C. Valentine, M.D., in The International Journal of Surgery.*

ENLARGEMENT OF THE THYMUS.—Biedert (*Berl. klin. Woch.*, June 29, 1896,) discusses this condition as a cause of death with croup-like symptoms, and records a case in an infant aged ten months. In spite of the negative results of examination it was looked upon as a case of croup. A moderately pronounced projection of the upper portion of the sternum was, however, noted, and here the percussion note was also impaired. As intubation gave no relief tracheotomy was performed. Later attempts to get over the obstruction with a catheter revealed an almost insurmountable resistance in the trachea. At the necropsy there was great swelling of the thymus, which projected against the upper end of the sternum. Some

bronchial glands were also much enlarged. After the removal of the thymus there were no evident remains of the pressure upon the trachea, but there was no other obstruction whatever in the air-passages. Sections of the thymus showed that both the follicles and the interstitial tissue were occupied by round cells, and that there was a greatly increased vascularity. This enlargement of the thymus has been found in other reported cases to be the direct cause of death. The author then refers to the relation between enlarged thymus and spasm of the glottis. Friedleben proved that a constant causal connection between enlargement of the thymus and spasm of the glottis could not be established, but his statistics showed that in fatal cases of spasm of the glottis a large thymus was more frequently found than a small one. The cause of death must lie below the larynx in cases of enlarged thymus, and is due either to pressure on veins with the consequent circulatory obstruction, or to pressure on the trachea and bronchi. In the case here referred to both factors were present.—*British Medical Journal*.

THE USE OF DIPHTHERIA SERUM IN OZENA AND CHRONIC PURULENT OTITIS.—In the *Therapeutische Wochenschrift* for July 26th Prof. Gradenigo, of Turin, gives an outline of the researches made since Fränkel's, in 1885, into the etiology of ozena. He accepts the theory of its infective character and recognizes Belfanti's bacillus as its cause. On account of the close resemblance in effects between this bacillus and that of diphtheria, he has used the antidiphtheritic serum in thirty-two cases of ozena. Sixteen of them are practically cured; that is, they were mitigated to the extent that the formation of crusts and fetor disappeared. In the other cases there was tangible improvement. Most of the patients had had the disease for a long time and had tried other treatment without avail. In the cases that were approximately cured the duration of the treatment varied from thirty to sixty-eight days, and the number of units of serum employed in an individual case ranged from 5,200 to 27,200. In all the cases edema at the site of the injection, urticaria, etc., followed after a certain number of injections had been used, but they were of brief continuance. In the sixteen cases that were cured the duration of the treatment was from fifteen to seventy-two days, and the number of injections was from four to thirty-five, the number of units of serum used being from 5,200 to 48,000. Mild local or general reaction symptoms occurred in almost all these cases, and attacks of bleeding from the nose were observed.

Prof. Gradenigo has employed the same treatment in two cases of chronic purulent otitis, or, rather, it happened that two of his ozena patients were affected with the ear disease also, and the serum treatment was observed to have a very favorable effect upon it. He considers Belfanti's discovery of the bacillus of ozena not only of great practical benefit as leading to a successful treatment of the disease, but also of much importance in general pathology.—*New York Medical Journal*.

DIABETES MELLITUS AND EPILEPSY.—Ebstein (*Sem. Med.*, May 22, 1896,) discusses the relationship between diabetes mellitus and epilepsy. Cases in which the diabetes is the cause of the epileptic attacks may be divided into two categories, according as the attacks are due to cerebral lesions or to disturbance in the intra-organic exchange consecutive to the glycosuria. Cases belonging to the former group are rare. In the cases of epilepsy due to diabetes the convulsive spasms are determined by toxic products of intra-organic exchange, and take more or less the form of coma. The acetonemic diabetic epilepsy described by G. W. Jacoby rapidly leads to fatal coma, but when it develops in a chronic and intermittent manner is said to determine epileptic seizures. The cases in which diabetes seems to depend upon epilepsy are divisible into two clinical varieties: those in which the elimination of sugar merely follows the convulsive attack—these have rarely been found, and those in which the glycosuria is a more or less constant accessory symptom of the epilepsy. The cases in which diabetes and epilepsy appear simultaneously are of two kinds: (1) Epilepsy often alternates with diabetes and mental disorders in neuropathic families, and it would therefore not be a matter of surprise to find the two conditions present in one individual of such a family. (2) There may be a predisposing cause of both in the same subject. Ebstein describes a case belonging to this latter class. The patient had an apoplectic stroke resulting from ischemia of the left hemisphere due to a cardiac lesion. There was aphasia and pollakuria, but no polydipsia, polyphagia, or polyuria. Some months later epileptic seizures, with complete loss of consciousness and convulsions in the previously paralysed half of the body, supervened. The two conditions seemed to occur quite independently of one another, and both resisted treatment, though there was marked improvement of the patient's general health.—*British Medical Journal*.

PERCUSSION OF THE VERTEBRAL COLUMN.—Bechtereff draws attention (*Gazz. degli Ospedali*, August 4, 1896,) to the diagnostic importance of percussion of the sacral region in some cases, as shown by the following instance: A patient was admitted under his care with symptoms of compression of the cauda equina. There was plantar and perineal anesthesia, spontaneous pain in the joints, etc., pain on percussion of the sacral region, and the sphincters were affected. The history was that the patient had suffered from a severe contusion in the lumbar region in falling from a horse eight months previously, and for the last six months the symptoms had been gradually increasing, till at the time the case came under observation there was considerable hectic. On account of the grave condition of the patient and his severe suffering it was decided to perform a laminectomy. This showed considerable caries of the sacrum with caseating material compressing the cauda. After the operation the anesthesia and pain disappeared, but the condition of the patient prevented his ultimate recovery. *Post-mortem* examination showed tuberculosis of the sacrum, suppurative

prostatitis, and tuberculous pyelitis. During life percussion of the sacral region gave a marked dull note, while in the healthy condition percussion of the triangular area which has for its base the upper part of the sacrum and for its apex the coccyx should give a slightly resonant note. In the case just quoted the dullness corresponded exactly with the tuberculous mass which was found *post-mortem*.—*Ibid.*

PASTEUR'S TOMB.—The crypt under the principal entrance of the Rue Dutol Institute, which is to contain Pasteur's tomb, is rapidly approaching completion, and his remains will probably be transferred to it from Notre Dame on December 27th, the anniversary of his birth. At the entrance of the vault is the following inscription in French: "Happy is he who carries within himself a God, an ideal of Beauty, and obeys it; an ideal of Science, an ideal of the virtues of the Gospel." In the carving of the interior are depicted the animals and vines that Pasteur rescued from disease.—*Medical News.*

IS THE PROFESSION OVERCROWDED?—It is estimated that ten physicians die every day and about twelve enter the profession daily and on an average five drop out each day, so that at this rate the medical profession will not soon be overcrowded; but unless a greater number engage in the study of medicine there will be a less number actively engaged in the practice every year. We now have an average of about four thousand medical graduates from the medical colleges in this country each year, yet the supply is not equal to the demand, that is, to keep the same number in active practice.—*Journal Medical Sciences.*

HAFFKINE'S ANTI-CHOLERA SERUM.—Dr. Simpson, the health officer of Calcutta, who has been investigating the Haffkine cholera treatment for the past three years, has just issued his report. Among 654 uninoculated persons there were 71 deaths (about 11 per cent), while among 402 inoculated persons in the same households there were 12 deaths, less than 3 per cent. Among 5,000 coolies, working in the tea gardens in Cachar, 2,000 have been inoculated. Fifteen of these were attacked by cholera and four died, but among the other 3,000, 154 were attacked and 60 died.—*Medical News.*

THE CONSUMPTION OF ALCOHOL.—Frenchmen consume more alcohol than other Europeans, according to figures put before the Basle Congress for Alcoholism. In the computation the amount of alcohol in light wines and beer is included. The average annual consumption of alcohol per head of population is 13 quarts in France, 10 in Switzerland, Belgium, and Italy, 9 in Germany and England, 4 in Sweden, 3 in Norway, and 2 in Canada.—*Ibid.*

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THE THERMIC CYCLE IN ACUTE INFECTIOUS DISEASES.

The Boston Medical and Surgical Journal of the 17th ult. treats its readers to an abstract of a recent monograph by Maragliano on "the cyclical evolution of fever in its relation with local morbid *foyers* occurring in the principal acute infectious diseases, pneumonia, articular rheumatism, typhoid fever, follicular tonsillitis, erysipelas, measles, and scarlet fever."

The article is a careful study of that general symptom of microbial proliferation in the body, fever, and brings to light many facts of clinical value. In fibrinous pneumonia, for instance, the "fever generally lasts seven full days; but this thermic cycle corresponds to a single center in one lung, or to several running their course simultaneously. When the pneumonic infiltrations form successively the fever persists longer. In this case each new pneumonic focus produces a febrile reaction which is less than seven days; in fact, the febrile attacks are shorter and shorter, and finally there may be pneumonic infiltrations without fever." The author maintains that while in pneumonia the fever is held to present a continued type, the continuity is only apparent. For, if the temperature be taken from hour to hour, remissions and even intermittencies are noted. "Early crises are more frequent than is generally supposed; out of two hundred and sixty-four

cases he has seen crises supervene on the second day in two cases, the third day in three, the fourth day in seven, the fifth day in thirty-five, and the sixth day in forty-one."

The prognosis of pneumonia does not depend on the maxima of temperature, but on the continuity of the fever. As long as the infection lasts the fever persists, and while this continues the pneumonia may always have a fatal issue, no matter what may be the height of the fever. The resolution of the local process has no direct and constant relation to the state of the fever, as the engorgement, the exudation, etc., remain for a variable time after the cessation of the fever.

In acute rheumatism the fever is the base of the elevations of temperature corresponding to each of the articular manifestations successively occurring. The number of joints simultaneously affected exercise no influence on the duration or intensity of the fever. One or more foci undergoing evolution together give rise to a fever whose duration never exceeds seven days. The total duration of the febrile period has no fixed limits, seeing that it depends on the number of successive local invasions. The fever in acute rheumatism has ordinarily a remittent character. The intensity of the infection is generally in direct relation with the degree of the fever.

In subjects affected with typhoid fever we have multiple infectious foci in the intestine at different periods of development. Cases will occasionally be observed in which the fever lasts only a week. Maragliano had noted many such where the clinical diagnosis was confirmed by a careful bacteriological examination. These were probably single dothinenteric foci without mixed infection. In typhoid fever, as in other acute microbial diseases, the fever is the index of the existence and of the intensity of the infection. When every symptom of general infection disappears the fever ceases. Relapses are attended with a fever less prolonged than that which accompanied the primary infectious *foyers*.

A single focus in acute follicular tonsillitis provokes a fever which lasts ordinarily just a week. If a second focus is formed the fever which accompanied it is of less duration, so that two successive foci run their course in less than a fortnight. In acute tonsillitis the fever continues as long as the general infection lasts.

The fever of erysipelas has a variable duration according as there exist one or more foci undergoing evolution successively. A single primary focus, whatever may be its extent, produces a fever of only seven days' duration. *Foyers* forming one after the other prolong the fever, but not in the same proportion. The fever in erysipelas takes on a subcontinuous type, and ceases with the crisis. The symptoms of the general infection are in relation with the existence and intensity of the fever.

In measles (when exempt from complications) the duration of the fever is about seven days. It is the same with scarlet fever. In these two dis-

eases the symptoms of the general infection and the fever disappear at the same time.

In all the acute infectious diseases there exists a constant relation between the fever and the symptoms of the infection due to the penetration into the general circulation of toxins elaborated by the pathogenic microbes. At the same time there is still a factor which intervenes in the development of the fever, namely, the manner in which the nervous system concerned in the production and regulation of animal heat reacts against the infection. Individuals whose nutrition and force of resistance are enfeebled react against a same pyretogenous cause by a fever less intense than robust subjects, while those who present considerable thermic elevations support better the grave infections.

It will be seen in most of the infectious diseases, such as pneumonia, follicular tonsillitis, erysipelas, measles, scarlatina, the duration of the thermic cycle corresponding to a single center of infection is just seven days. From this fact Maragliano concludes that in a single focus only a limited number of generations of the pathogenic microbe develop, and that, on the other hand, the febrile reaction is provoked, not by the bacterial toxalbumins whose toxic action varies according to the specific microbe from which they come, but by the proto-nucleins contained in the bodies of the bacteria; we know in fact that these proteins, whatever may be the microbe to which they belong, exert always on the animal organism the same pyretogenous and phlogogenous action.

As for the abortive infections in which the fever lasts less than seven days, we have really to do with subjects particularly refractory to the pathogenic microbe, for which they constitute a bad culture soil. Maragliano thinks that the fact that each of the foci of infection successively forming produces a fever of less and less duration, is to be explained by the accustomance of the patient to the bacterial poison by a progressive auto-immunization. The study of the fever chart in the acute infectious diseases furnishes to the clinician important indications. Thus each new ascension of the temperature indicates the formation of a new focus of infection. A fever whose degree is not in relation with the intensity of the other nervous troubles has an unfavorable signification for the prognosis. A fever chart which presents few oscillations indicates that the bacterial poison penetrates the circulation in a continuous manner; on the other hand, the existence of considerable oscillation is the expression of intermissions occurring in the activity of the pathogenic microbes, a fact which is of good augury from the point of view of the evolution of the disease. The temperature chart, therefore, is our index of the actual toxin-producing activity of the bacteria, a sudden rise indicating that having exhausted their present field of activity they have made new inroads into healthy tissue.

Notes and Queries.

THE SURGICAL TREATMENT OF TUMORS OF THE MIDDLE CRANIAL FOSSA.—Krogius (*Rev. de Chir.*, June, 1896,) reports an interesting case of tumor of the middle fossa of the cranium on the left side. The patient, a woman aged thirty-four, had, since November, 1892, suffered intense pain over the left side of the face. Three months later slight ptosis with myosis was observed on the same side. Towards the end of the spring the left side of the face became anesthetic. In the course of the following summer the external rectus of the left eye was attacked by paralysis, and in the autumn the patient became deaf on the left side in consequence of compression of the eustachian tube by a tumor projecting into the nasopharyngeal cavity. From the end of the year 1892 up to the spring of 1895, when the patient came under the author's notice, the neuralgia of the face on the left side had gradually increased in intensity. The case was diagnosed as one of tumor of the middle cranial fossa on the left side. In April of last year an operation was performed which consisted in resection of the zygomatic arch and coronoid process, in trephining of the base of the cranium, and in removal of an endotheliomatous tumor of the size of a pigeon's egg. A fungous protrusion of the brain was noted on the sixth day after the date of operation. The patient progressed favorably until the twelfth day, when meningitis set in, which proved fatal within a few hours. The severity of the symptoms in this case justified, the author thinks, a serious operation. Even though the tumor, might not, as was proved, have been capable of complete removal, the patient, if she had survived the surgical treatment, would have been relieved for the rest of her life from the great suffering caused by the neuralgic pains. The operation in the case, however, was, it is acknowledged, a very dangerous one. It was of prolonged duration, and nearly caused immediate death by collapse, which was averted by the administration of powerful stimulants, and the intravenous injection of a solution of common salt. The result of the surgical treatment might, the author thinks, have been different in this case had the operation been practiced at an early stage of the disease, which had first presented definite symptoms about two years and a half before the attempt at removal of the tumor. As the trigeminus and the motor nerves of the eyeball are close neighbors, a tumor forming in the middle cranial fossa should manifest itself in a characteristic manner by associated disturbances of their functions: on the other hand by neuralgia and anesthesia of the trigeminus, paralysis of the motor branches of this nerve and trophic disturbance of the face; on the other hand, by paralysis of the muscles of the

eyeball. These nerve troubles ought, the author holds, to be sufficient to furnish positive indications for the establishing of a local diagnosis.—*British Medical Journal*.

RÖNTGEN RAYS IN THE TREATMENT OF FRACTURES.—Oberst, of Halle, has for several months examined every fracture in his hospital service by means of the Röntgen rays. He finds, as a result of his observations, that without anesthetizing the patient, or subjecting the broken limb to manipulation, it is possible to make an exact diagnosis of the position, nature, and direction of fractures, and of the amount of deformity. He therefore employs anesthesia only in cases where painful manipulations are necessary to correct faulty positions of the ends of the bones. He thus avoids that experience common to almost all surgeons, the etherization of cases with a negative result, and also the danger of fresh hemorrhage or laceration of tissues from stirring up the fractured ends.

For teaching purposes the Röntgen photographs have proved of great value.

He has also made a practice of having a skiagraph of every case of fracture taken at the close of treatment, and compared with the one secured at the beginning.

As a result of his investigation he has found that the so-called ideal or perfect union after fracture is rarer than has been generally believed, and that in almost all oblique fractures union takes place with more or less overriding of the fractured ends, a slight degree of which might escape simple manual examination, as the outline of the fragments is obscured by the callus, which is larger in proportion to the amount of overriding. In bones which are deeply covered in by soft parts, it is possible for a considerable deformity to escape even careful observation. The condition of the fibula in the fractures of the upper two thirds of the leg has frequently remained entirely unknown, whether the fractures have healed with or without deformity. For a correct understanding of the symptoms which frequently persist after union of a fracture, a correct knowledge of the position of the ends of the bones is, however, of the greatest importance, and this knowledge the Röntgen rays enable us to possess.

In cases in which there was long-continued functional disturbance after fractures, although manual examination revealed no deformity, and no injury to nerve or muscle could be established, the skiagraphs invariably showed overriding of the fragments, even though of slight degree. In all cases in which the skiagram showed absolutely no deformity the functional disturbances consequent upon the fractures were slight and fleeting.

Perhaps the most interesting of the skiagrams which illustrate the article is one of a fracture of both bones of the leg in a man of fifty-two, in which union was delayed for four months, finally taking place with slight overriding of the fragments, resulting in a shortening of two centimeters. Many months after union had taken place, however, the subjective symp-

toms were so severe that the patient was thought to be exaggerating. The skiagram showed the reason for his complaints to consist in the fact that the overriding of the fragments was much more marked than what was inferred from the manual examination, and that a piece of the fibula, six and one half centimeters long, was broken right out of the continuity of that bone and lay at an angle of about thirty degrees with the long axis of the limb. The deformity of the fibula could not have been made out without the Röntgen rays.

The skiagrams are full of interest, and sustain the point brought out by Dr. Codman at a recent meeting of the Boston Society for Medical Improvement, and illustrated by a skiagram of a fracture of the forearm, that fractures which have been brought into a position that is apparently perfect by manipulation, will frequently show more or less dislocation of the fragments when tried by the Röntgen tests.

Is the time far distant when every fracture will be not merely examined but reduced and dressed under the fluoscope? It is possible that in certain cases the reduction of the deformity revealed by the fluoscope will be impossible; but it would appear at least probable that, aided by the exact knowledge of their extent, and of the direction in which pressure must be applied to correct them, the deformities of fractured bones which will persist after surgical efforts at their correction will be considerably rarer than heretofore.

In case operative efforts are required to correct deformity, they can be more intelligently and effectively directed under the guidance of the fluoscope and skiagram than under the knowledge gained by the surgeon's unaided fingers, especially when he is dealing with bones deeply covered by muscle, fascia, and fat.—*Boston Medical and Surgical Journal*.

FIBRINURIA.—Arthur Klein (*Wein. klin. Woch.*, July 30, 1896,) gives the history of a case in which fibrinous clots were passed, and analyses the previously recorded instances (four in number) in which this has occurred. The patient was a man of fifty-two, who had been ill for fifteen months with cough, headache, and dyspnea on exertion, to which had recently been added swelling of the extremities and rigors. Examination led to the diagnosis of Bright's disease; the urine was acid, of specific gravity 1013, and contained a large quantity of albumin, with numerous hyaline and epithelial casts. Treatment consisted in hot baths and milk diet, and the patient improved considerably, the edema almost completely disappearing. Ten days after admission it was noticed that the urine, which was slightly alkaline, contained a large number of grayish-white clots, some rounded and others flattened, and varying in length from half an inch to four inches; some were as much as two inches thick. These, if allowed to stand, settled to the bottom, and the supernatant urine sometimes showed a further curious phenomenon in the shape of fine threads, which formed a network extending throughout the fluid. On shaking this became detached from

the sides of the vessel, and formed a well-marked clot; the urine had thus clotted just like a serous fluid. The amount of deposit remained constant except just before a rigor, when it diminished, to return to its former amount with the subsidence of the temperature. If the clot were allowed to remain in the urine for a few hours it disappeared entirely, probably by a sort of process of self-digestion. Chemical examination proved the clot to be composed of fibrin. The urine from which it was deposited showed, as compared with that at other times, alkalinity, much diminution in solid contents, an especially minute amount of phosphates, but an enormous quantity of albumin. There could be no doubt as to the renal origin of the fibrin, but it was very hard to define its pathological cause: evidences of nephrolithiasis, kidney abscess, etc., which had been present in former cases were here wanting, nor did hematuria ever appear. Klein attributes the coagulation to the alkaline reaction, the large quantity of albumin, and the almost complete absence of phosphates; it bore also, no doubt, some relation to the sudden rigors and rises of temperature. Some time after the completion of the experiments the patient became worse and died; the kidneys were found to be in a condition of amyloid degeneration, and their tubules contained hyaline masses and threads giving Weigert's reaction for fibrin. Klein adds the notes of analyses of two other kinds of clots. The one was found in the urine in a case of cystitis; it consisted of a nucleo-albumin inclosed in a capsule of mucin. The other was a cast from a patient suffering from plastic bronchitis, and this failed to give the fibrin reaction either in bulk or in section; it consisted of mucin, and contained large colonies of diplococci.—*British Medical Journal*.

LATENT ULCER OF THE STOMACH.—The *Presse Medicale* for July 25th contains the following account of a remarkable case of latent ulcer of the stomach, which came under M. Dieulafoy's observation: The first symptom which manifested itself was perforation; there had been no previous gastric symptoms, no dyspeptic troubles, and no vomiting of blood. The patient was a young woman who was apparently in good health, although about two months before she had complained of pain in the stomach, to which, however, she did not attach much importance. Her appetite was good and she never complained of indigestion, and on the day that perforation took place she performed her usual work and appeared to be perfectly well. Shortly after dinner she was suddenly seized with a horrible pain in the epigastric region, and a physician was called. But he could not make an exact diagnosis, and, thinking that it might be a case of hysteria, prescribed an enema containing laudanum. On the following day M. Dieulafoy saw the patient. The pain was then somewhat mitigated, but it extended over the entire abdomen; the abdominal wall was tense rather than swollen, and the slightest touch or pressure over the abdomen was intolerable. The pulse was frequent, but the general condition was rather good; the expression of the face was not anxious; there were no peritoneal

facies, no hiccough, and no vomiting. However, M. Dieulafoy gave a diagnosis of generalized peritonitis, and the patient was immediately taken to the hospital, where an operation was performed. At the time of her admission the temperature was 101.6° F., and the pulse 120. The abdomen was swollen and tense. Median subumbilical laparotomy was practiced, and when the abdomen was opened a stream of yellowish liquid escaped. The intestines appeared to be congested, and their surface presented creamy-like false membranes of recent formation. The appendix was found to be in a healthy condition, and the genital organs were not involved; the seat of the peritoneal lesion was evidently the upper part of the abdomen. During the exploration the patient's general condition became so aggravated that it was not thought prudent to lengthen the incision and prolong the operation, so the abdomen was closed after the peritoneum had been subjected to lavage with boiled water. The patient died on the following morning.

At the autopsy the integrity of the appendix and the genital organs was verified, but on the anterior surface of the stomach, at a distance of about a centimeter from the small curvature, and at an equal distance from the cardia and the pylorus, a large perforation was found; it was of about the size of a fifty-cent piece, and its borders were not thick; there were no surrounding peritoneal changes. On the posterior surface of the stomach there were some adhesions which united it with the pancreas; these adhesions were very loose, and were easily torn away by the finger. They surrounded a second perforation, which corresponded exactly in size, shape, and situation with the first one. The appearance of these ulcers resembled the classic type of simple ulcer of the stomach, and they had certainly existed a long time before perforation occurred.

It is incomprehensible, says M. Dieulafoy, how an ulcer which was serious enough to cause perforation could have remained completely indolent; it is possible, he thinks, that symptoms had manifested themselves at some time, and that they had been forgotten by the patient or neglected by those who observed them. M. Dieulafoy thinks that this case demonstrates that, in the presence of a sudden attack of peritonitis, the physician should not attribute it only to appendicitis, salpingitis, intestinal perforation, or perforations of the biliary tracts, but to perforations of the stomach as well, although there may be no history of previous gastric troubles. At the present time he says, when surgical intervention in peritonitis is of daily occurrence, an early and correct diagnosis may, in favorable cases, assure the recovery of the patient.—*New York Medical Journal*.

CASE OF CUTANEOUS ANTIPATHY TO ATROPINE.—In the year 1894 the patient was engaged in crushing the leaves and stems of fresh belladonna for the purpose of making the extract of that herb. During the course of his task splashes of the juice found their way to his face and hands and arms. Within an hour of the process the skin of his face felt hot and

uncomfortable and his sight was altered. On the following day, that is, within twenty-four hours of the exposure, there were scattered over his face patches of erythema and also distinct vesicles and pustules. A simple zinc and calamine lotion was used, and in ten days he was quite well. The same man, who is now twenty-eight years of age, was engaged in February of this year in making four dozen tablets of atropine. The tablets were composed of ten grains of atropine and thirty-eight grains of sodium chloride. In making these some of the atropine would float in the air. He noticed within an hour the same discomfort as he experienced after being splashed with the belladonna juice and that he could not see distinctly. He was seen on the following day, when his pupils were widely dilated and his face was fully covered by an erythematous rash and vesicles, which vesicles contained a fluid the color of honey. Some of the vesicles had burst and the secretion drying was heaped up in crusts. The eruption was, so far as outward manifestations, analogous to an eczema produced by fierce sunlight. He complained of itching and stiffness of the face. The scalp, eyebrows, whisker region, upper lip, and ears were not the seat of any changes. This man had regularly, as the year came round, from 1886, exposed himself to the belladonna juice, but he is certain that no evil resulted from such exposure before 1894. There is nothing unusual in his history or temperament and he has been free from skin disease. He was ordered a belladonna plaster for lumbago some time since, and this brought out a vesicular rash. Similar treatment was adopted after making the tablets as after the exposure to belladonna juice and with the same result.

The question of drug eruptions has been so copiously and ably brought before the profession by Dr. Morrow, and has also been alluded to in all recent works on diseases of the skin, that but few remarks are possible. Dr. Morrow writes: "The exanthem produced by the external or internal use of belladonna or its alkaloid is usually erythematous in character," and he goes on to say, "it is usually confined to the face and neck." I can not claim much experience of belladonna rash caused by the internal administration of the drug, as only on one occasion can I remember seeing a patient who had cutaneous trouble after taking it, and in that case the eruption, which was fairly universal, consisted only of a vivid red aspect most marked certainly on the face and neck, and with this rash there was also redness of the eyes and pharynx. In the daily experience of practice I have been surprised to find so many individuals with skins which were made eczematous by the application of belladonna in any form. So much has this been the case that before ordering the drug I have made it a routine question to ask whether the patient knows of any individual antipathy to the drug. The evidence has not always been conclusive and I have, with the knowledge of the sufferer but against his wish, ordered the liniment or some of the forms of belladonna used for external application, and I do not remember a single instance in which the special action, having once occurred, which has not been repeated on a second exposure. This is cer-

tainly curious and proves that a tissue antipathy is never overcome. We may whittle our dose down as much as we like but the infallible test of idiosyncrasy will show the individual susceptibility. Of course, the greater the quantity of the remedy and the stronger it is used the more pronounced are the symptoms produced. An important aspect of the case is that we can never find out these antipathies without exposure to the agent. Iodide of potassium, the bromides, mercury, arsenic, opium, and a host of other potential remedies we frequently have to discontinue using because of idiosyncrasy, and so far as I know the organism never becomes habituated to the agent. Neither does one attack mitigate the severity of the others, rather is the reverse the truth.—*Dr. Tom Robinson, in the Lancet.*

THE SERUM TEST AS A METHOD OF DIAGNOSING FOR TYPHOID FEVER. Further experience with Widal's serum test in typhoid fever tends to confirm its value as a useful aid to diagnosis.

On November 9th the New York Board of Health issued a circular to physicians inviting them to co-operate with the department in conducting experiments which will assist in the diagnosis of early or obscure cases of this disease. Dr. Hermann Biggs, director of the health board's bacteriological laboratory, reported to the board recently that previous investigations showed that serum from the blood of typhoid patients has the power of arresting the active movement of the bacilli, and of producing peculiar and characteristic clumping of these organisms. It has been shown, he considers, that this reaction occurs frequently very early in the course of the disease, at a time when the physician by ordinary methods can not determine certainly whether the patient is suffering from typhoid or some other form of fever. Also, that it is found throughout the course of the disease, and very often for a considerable period after complete recovery. With the sanction of the Board Dr. Biggs has arranged to make a daily collection of slides furnished by physicians from the druggists with whom diphtheria culture tubes are kept, and to promptly investigate and report upon them. It is believed that the scheme will be of material assistance to practitioners in enabling them to promptly care for typhoid cases in incipient stages.

At the Boston City Hospital the test has been made in about fifty cases of undoubted typhoid, of doubtful typhoid, and of a few other diseases. In almost all the response has accorded with the diagnosis as previously made, or reached later with a clearer view of the conditions.

Dr. C. L. Greene, of St. Paul, Minn., reports the results of the application of the test in twenty-five cases, eleven of typhoid and thirteen of other diseases; with positive results in all of the first class, and negative results in all of the second class.

The reaction has been observed as early as what was supposed to be the end of the first week and as late as the seventh week.

To determine the true value of the test as a means of diagnosis further observations are desirable.—*Boston Medical and Surgical Journal.*

A CRAZE FOR QUACKERY IN PARIS.—The following is taken from London dispatches to the Sun:

"Quackery has come to be more profitable than the legitimate practice of medicine with a large class in Paris. The other day a gentleman whose rooms are crowded from morning till night with patients was threatened with prosecution for exercising the profession without a diploma. Being thus brought to bay, he confidentially displayed to the officials the necessary document. He, however, implored the authorities to keep the diploma secret, explaining that if his clients had an inkling that he was a veritable physician his gains would diminish. M. Paul de Cassagnac makes even a more remarkable disclosure, and vouches for its authenticity. He asserts that there is a house in Paris in which patients are received for the purpose of undergoing sham operations. They have been induced to believe that they are suffering from some organic complaint which can only be cured with the knife, and they betake themselves to this establishment, which has been particularly recommended to them. On the day appointed for the so-called operation they are put under chloroform, and a few make-believe cuts and scratches are inflicted. In certain medical circles there is a regular name for men who practice these tricks on the victims of imaginary ailment."

THE SOUTHERN KENTUCKY MEDICAL ASSOCIATION will hold its fifth semi-annual meeting in the city of Hopkinsville, Ky., Wednesday and Thursday, April 14th and 15th. An interesting program will be arranged. Accommodations on railroad and at the hotels at reduced rates. All physicians are cordially invited to attend.

(Signed) B. W. SMOCK, M. D., *Secretary*.

THE NEXT MEETING OF THE BRITISH MEDICAL ASSOCIATION.—It is announced that the meeting of 1897 is to be held in Montreal. This news, we are confident, will prove quite as acceptable to the physicians of the United States as to those of the Dominion, and it can readily be foreseen that there will be a large attendance of Americans at the meeting.

A BIT OF NEWSPAPER MEDICINE.—One of the morning papers tells of a woman who was recently found lying in a salt marsh on Coney Island "unconscious" and "apparently suffering greatly."

THE USE OF SALOPHENE IN CHOREA.—Dr. Luigi Cappellar (*Riforma Medica; Therapeutische Wochenschrift*) reports a case of chorea minor following influenza in a girl, eleven years old, with nervous tendencies. She could not take Fowler's solution, because it deranged her digestion. Salophene was given in doses of five grains six times a day at first, subsequently increased to seven grains. This was continued for ten days without digest-

ive disturbance. As the chorea had become mitigated, the doses were then reduced to what they had been at first and given for ten days more, at the end of which time the chorea showed itself only on attempts at voluntary movement of the arm and soon disappeared entirely.

Special Notices.

TREATMENT OF OBESITY.—The treatment of obesity has hitherto chiefly consisted in the adoption of one of the various dietetic systems, as that of Banting or Ebstein, in connection with the use of drugs which owe their fat-reducing influence mainly to their purgative properties. While some persons obtain benefit from strict adherence to one of these so-called reduction cures, there are many who are unwilling to put up with the attending discomfort, or to whom the treatment becomes so irksome that the patient can not be made to persevere for a sufficient time to experience its effects. Others, again, are so weakened by a radical change in the diet that it can not long be maintained. Hence, when some time ago attention was drawn to the fact that many cases of obesity could be improved by thyroid feeding, it was thought that a decided acquisition had been made to the therapeutics of this affection. It was found, however, that owing to their uncertain strength it was difficult to regulate the dose of thyroid preparations, and that partly in consequence of this and partly because of the presence of albuminoid decomposition products unpleasant and even injurious sequelæ were not infrequently noted. When, therefore, Baumann discovered the active principle of the thyroid, a trituration of which with sugar of milk has been introduced under the name of Iodothyrene, he enabled the physician to avail himself of all the benefits of the thyroid treatment in obesity without the drawback of other thyroid products. Experiments made with Iodothyrene by Dr. Grawitz in the medical clinic of Prof. Gerhardt, of Berlin, by Dr. Hennig and others, have demonstrated that even in cases where no change was made in the diet there was a rapid and marked reduction in weight. This was unaccompanied by unpleasant or toxic effects of any kind, so that the new remedy may be considered as a safe and reliable anti-fat and an important acquisition to the treatment of obesity.

SANMETTO IN GONORRHEA.—Dr. A. G. McCormick, Richmond, P. Q., Canada, writing, says: "I prescribed Sanmetto in a recent severe case of gonorrhea with the greatest satisfaction. I never prescribed any remedy in such cases that acted so well. The case was one of simple gonorrhea, of a severe type—pain, burning, and scalding, with a profuse discharge. By the use of Sanmetto my patient made a rapid and satisfactory recovery. Sanmetto is a sovereign remedy in such cases. I used it two years ago in a like case with a similar result. I am well satisfied that Sanmetto is by far the surest, speediest, and safest, as well as the most pleasant and most satisfactory remedy we have for gonorrhea."

WM. GEDDES, M. D., 1720 Fourteenth Street, Washington, D. C., says: ALETRIS CORDIAL has proven, in a case of dysmenorrhea of some years' standing, wonderfully efficacious, and has apparently given to the sufferer complete relief. This being the first case in which I have had occasion to try the ALETRIS CORDIAL, and sufficient time having elapsed for me to speak of the permanence of the cure, I can say that I propose to continue the use of ALETRIS CORDIAL in all such cases, and wherever a uterine tonic is indicated.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ON THE TREATMENT OF MALARIA.

BY E. J. KEMPF, M. D.

Malarial diseases are usually classified under the following heads: (a) Intermittent Fever; (b) Remittent Fever; (c) Pernicious Intermittent Fever; (d) Pernicious Remittent Fever; (e) Latent Malaria; (f) Masked Malaria; (g) Typho-Malaria, or Continued Fever; (h) Malarial Cachexia, or Chronic Malaria.

The cause of all malarial diseases is supposed to be the presence in the blood of a vegetable micro-organism, named *plasmodium*, and the principal lesions are found in the blood and spleen.

Why the same micro-organism should cause such widely different results, intermittent fever in one, remittent fever in another, long lingering illness in another, and speedy death in another, we may presume to explain by the theory, that the toxines produced by the actions of the *plasmodium* on the constituents of the blood bring on the different kinds of diseases. Whether such is the case, however, remains to be proven. It may be, too, that the *plasmodium* varies in kind.

So long as the cause of malarial diseases remains a theory, so long will the treatment of the different diseases, subdivided under the head of malaria, remain more or less empirical.

In the salts of quinine we are supposed to possess a specific for malarial fevers. On the way and manner of giving this drug depend prompt effects from it. Very frequently quinine must be aided with

other drugs and treatment. And if quinine fails, as it often does, other remedies must be substituted for it.

Why does quinine cure malaria? That we may presume to explain in the following theoretical manner. Quinine has a definite action on certain constituents of the blood, on the hemoglobin, impairing its power to transport active oxygen or ozone, and it may have other actions not yet explained. Now, we know that quinine cures malaria, but we also know that quinine has no effect whatever to cut short an attack or paroxysm of malarial intermittent fever. No amount of quinine will stop the chill, fever, and sweating of a paroxysm of intermittent fever, but if given in the interval, it will prevent the return of the attack. No amount of quinine, we may presume to say, will remove the toxin in the blood put there by the action of the *plasmodium*, but a certain amount of quinine will eradicate the *plasmodium*.

Quinine, if given in sufficient quantity, will produce an effect on the system called cinchonism. It may produce this before a sufficient quantity of quinine has been taken into the system to eradicate the malarial germ, and, if so, another round of quinine will be necessary. This fact should always be remembered, if many failures, wrongly attributed to the quinine instead of to the way and manner of giving it, are to be avoided. Furthermore, we depend on quinine to destroy the *plasmodium*, and administer other remedies to reinforce the quinine, in order to aid the excretory organs to throw off the poison in the blood, and perhaps in the spleen, put there by the action of the *plasmodium* on the constituents of the blood.

We in this imitate nature. Contemplate for one moment an attack of remittent fever. First the chill, and then the fever, and last the sweating. What an enormous amount of poison the sweat glands must throw off! And the kidneys too come to the rescue, for the urine of the patient suffering from malarial fever is always high-colored, and this high-colored urine indicates a highly poisoned condition of the urine, according to the researches of Ch. Burchard (Lectures on Auto-intoxication in Disease).

He who knows how, and when, and in what doses to give quinine, and also how to auxiliate the quinine with other remedies and with the proper hygienic treatment, knows best how to treat malarial diseases in all their types.

Latent malaria is a condition termed "bilious" occurring in malarious regions, and characterized by anorexia, vomiting, headache, constipation, weakness, and lassitude.

For the constipation and vomiting, and as an aid to the excretory organs, give for children :

- No I. R Calomel, gr. j;
Podophyllin, gr. ss.;
Bicarb. sodii, gr. iv.
M. ft. pulv. iv.
Sig: One powder every hour or two.

This is to be followed by any one of the following, to eradicate the malaria:

- No. II. R Quinine sulph., gr. x;
Licorice, ext. po., gr. xv;
Sugar, white, po., gr. xx.
M. ft. pulv. v.
Sig: One powder every two hours.
- No. III. R Febriline, ℥ij.
Sig: Teaspoonful every two hours until five or six dozen are taken;
repeat in a day or two.
- No. IV. R Quinine sulph., gr. lx;
Tannic acid, gr. x;
Syrup wild cherry, ℥ij.
M. Sig: A teaspoonful.
- No. V. R Quinine sulph., gr. xx;
Fl. ext. licorice ext., ℥ij.
M. Sig: A teaspoonful.

The fluid extract of licorice extract is made as follows:

- No. VI. R Licorice extract, dry, 20;
Hot water, 20;
Glycerine, 20;
Dissolve, let cool and add alcohol, 10;
Distilled water, q. s. to make, 80.

As after-treatment to build up the system give to children one of the following :

- No. VII. R Syrup iodide iron, ℥j.
Sig: From one to five drops in water before meals three times a day.
- No. VIII. R Fowler's solution, ℥j;
Comp. tinct. cinchona, ℥ij.
M. Sig: From fifteen to thirty drops in water after meals three times a day.

Treatment for latent malaria in adults:

- No. IX. R Blue mass, gr. x;
Ext. hyoscyamus, gr. v.
M. ft. pil. v.
Sig: One pill every hour at night; and follow in the morning by a saline cathartic.

- No. X. R Calomel, gr. iij;
 Podophyllin, gr. j;
 Bicarb. sodii, gr. v.
 M. ft. pulv. iv.

Sig: One powder every two hours.

These two prescriptions are to cleanse the chylopoietic system and aid the kidneys. To eradicate the malaria give quinine in pill, tablet, powder, capsule, or acidulated mixture, the dose to vary from ten to thirty grains, or any one of the following prescriptions:

- No. XI. R Sulphate iron, 3j;
 Nitric acid, 3ss.;
 After effervescence ceases add nitrate pot., . 3ss.;
 Water, 3ij;
 Syrup, 3ij;
 Quinine sulph., ʒj to 3j.

M. Sig: Teaspoonful in water.

- No. XII. R Quinine sulph., gr. xv;
 Cinchonidia sulph., gr. x;
 Ferrocyanide of iron, gr. v.
 M. ft. caps. viii.

Sig: One every hour.

- No. XIII. R Quinine sulph., gr. xl;
 Pepsine, gr. vj;
 Capsicum, po., gr. vj;
 Ginger, gr. xij;
 Bicarb. sodii, gr. xl.
 M. ft. caps. ix.

Sig: One every two hours.

As tonic, the following prescriptions are recommended:

- No. XIV. R Quinine sulph., 3j;
 Strychnine sulph. (dissolved in water), . . gr. j;
 Muriate tinct. iron, 3ij;
 Glycerine, 3iij;
 Water, 3iij.

M. Sig: Teaspoonful in water three times a day.

- No. XV. R Fowler's solution, 3ij;
 Comp. tinct. cinchona, 3iv.

M. Sig: Teaspoonful three times a day.

The prudent practitioner will vary these prescriptions, or give other remedies according to the symptoms of the case and its complications.

Masked malaria is a condition occurring in malarious regions, which accompanies or predisposes to such diseases as neuralgia, pneumonia, dysentery, herpes, eczema, etc. These diseases by their greater intensity obscure the original malaria, and thus mask it. This condi-

tion is generally recognized, and physicians as a rule are constantly on the watch for it. In such cases the disease that masks the malaria demands our first and complete attention, but much can be done by the judicious use of quinine to eliminate the malaria from the system, and thus rid it of part of its burden. In these cases the tasteless quinine mixtures, quinine in pill form or in tablets, in powder or in capsules, are useful. In neuralgia, Gross' neuralgia pill, or antikamnia and quinine in tablet form, will be efficacious if there is malaria in the case. In cases where quinine can not be given internally it may be given by enema:

No. XVI. **R** Quinine sulph., gr. xv;
 Flaxseed mucilage (flaxseed 3j; boiling
 water 3iv; strain), 3iv.

M. Sig: Inject after first cleansing the bowels with several injections of warm water.

Or, it may be given hypodermically, as follows:

No. XVII. **R** Quinine sulph., gr. xl;
 Acid sulph. dil., gtt. xl;
 Distilled water, 3j.

M. Filter. Sig: Inject a syringe-ful.

Or, quinine may be given hypodermically in children, as follows:

No. XVIII. **R** Quinine muriate, 3j;
 Chloroform, 3j;
 Vaseline, 3j.

M. Sig: Rub on the inner side of thighs and in the armpits.

Frequently, too, quinine may be incorporated into a prescription containing drugs indicated for the treatment of the case in which masked malaria occurs or is suspected.

Intermittent fever is so called because the paroxysm in which the malaria in the system shows itself recurs at definite intervals. This may vary, and so we may have the quotidian, tertian, quartan, and other forms. Age, sex, occupation, and constitution exempt no one who resides in a malarious region. Nevertheless, persons weakened in other ways are more liable to fall victims to the action of the malarial germ. Intermittent fever presents three distinct stages: (1) a cold stage, (2) a hot stage, (3) a sweating stage. Collectively they constitute the malarial paroxysm. In rare and severe cases there occur neuralgic pains, convulsions, nervousness, hysteria, delirium, vomiting, diarrhea, asthma, deafness, blindness, paralysis, and other symptoms. These symptoms require appropriate treatment.

During the chill, chloroform water, aromatic spirits ammonia, Hoffman's anodyne, some simple hot drink, hot-water bottles to the feet, warm blankets, and an opiate or camphor and opium, will prove of benefit.

The hot stage may be made more comfortable by the sponge bath, with equal parts of water and vinegar. A tablet of antikamnia and morphine may ease the patient. Gelsemium and bromide of potash are to be recommended when there is headache, with throbbing in the temples and a flushed face.

Quinine has no power to abort the paroxysm, and this should be borne in mind, but to prevent the return of the paroxysm it is the only known specific we have, if it is given properly, *alone* or in *combination* with other drugs.

If the quinine is to be given in powder, it may be administered in a wafer, in a capsule, in black coffee, or in water. Tablets and pills, sugar-coated or gelatine-coated, are not reliable, because they are often hard and insoluble. If they must be used, it will be well to prescribe the product of a house that is known to be reliable.

For children febrile or quinoline, which are proprietary preparations, or prescriptions Nos. 2, 4, and 5 may be prescribed. These more or less tasteless preparations may also be used in adults, but in large doses.

The following prescription is one of my favorites in the treatment of simple intermittent fever occurring in adults:

No. XIX. R Blue mass, gr. x;
Ext. hyoscyamus, gr. v;
Quinine sulph., gr. xx.
M. ft. pil. x.

Sig: One every hour during the evening, to be followed by salines in the morning.

The objection made by some authors "to drive the quinine out of alimentary canal before it has sufficiently absorbed" does not appear against this prescription, as the bowels will rarely if ever move until the salines have been taken in the morning.

Quinine acts most promptly if taken in solution. The solution may be made with sulphuric acid, or aromatic sulphuric acid. In the following prescription the unpleasant cerebral effects of quinine are lessened:

No. XX. R Quinine sulph., 3j;
Acid hydrobromic, dil., 3ij;
Water, 3xiv;

M. Sig: One or two teaspoonfuls at a dose.

Hydrobromic acid is made as follows:

No. XXI. R Bromide potash, gr. cxx;
Tartaric acid, gr. cliij;
Water, ℥j. M.

The following prescriptions may be used after the malarial fever has been checked to prevent its return, and also to repair any damage the malarial germ may have done to the system:

No. XXII. R Water, ℥j;
Nitric acid, ℥vj;
Mix and add sulphate iron, ℥j. M.

Let stand forty-eight hours, stir occasionally with a glass rod, filter, and keep in a glass-stoppered bottle. This is the acid solution of iron so much used by eclectic practitioners.

No. XXIII. R Magnesia sulph., ℥iij;
Iron sulph., ℥ij;
Acid sulphuric, dil., ℥ss.;
Infusion quassia comp., Oj.
M. Sig: Two or more teaspoonfuls.

No. XXIV. R Acid arsenious, gr. iv;
Acid muriatic, ℥ss.;
Tinct. iron sesquichloride, ℥ij;
Water, Oj.
M. Sig: Two or more teaspoonfuls.

No. XXV. R Liq. potas., gtt. x;
Liq. soda arsenite, gtt. v;
Bicarb. sod., gr. x;
Carbonate sod., gr. v;
Water, peppermint, ℥j.
M. Sig: Two teaspoonfuls.

No. XXVI. R Quinine sulph., gr. xxx;
Ac. sulph. dil., q. s.;
Water, ℥ij;
Tinct. iron muriate, ℥ss.;
Spt. chloroform, ℥vj;
Glycerine, ℥iv.
M. Sig: Teaspoonful in water.

No. XXVII. R Tartrate iron and pot., gr. v;
Donovan's solution, gtt. ij;
Bicarb. pot., gr. x;
Tr. nux. vom., gtt. v;
Water, ℥j.
M.: A dose.

No. XXVIII. R Quinine sulph., gr. xxv
 Valerianate zinc, gr. xxv;
 Cit. iron ammoniated, gr. xxx;
 Aloes soct., gr. x;
 Confect. senna, q. s.

M. ft. pil. xxx. Sig: One pill three times a day.

No. XXIX. R Cinchona sulph., ℥j;
 Iron sulph., ℥iv;
 Copper sulph., gr. xxxij;
 Strychnine sulph., gr. xvj;
 Ac. sulphuric arom., ℥j;
 Water, Oiv.

M. Sig: Teaspoonful.

I would also like to refer to prescription No. XI, to which I shall again call attention in discussing the treatment of remittent fever.

In intermittent fever eclectics of my acquaintance use the tincture of cinchona, one dram to four ounces of water, a teaspoonful every hour where there is gastric derangement. Where there is atony of the stomach and bowels accompanying the fever gentian is used to supplement the action of quinine, or euonymus, in doses of one-half to one dram; tela aranæ, in doses of from one to ten drops, in the place of quinine; when there is profuse sweating, xanthium spinosum, in doses of from one to ten drops; cornus florida, one dram to four ounces of water, a teaspoonful when there is headache; eupatorium purpureum, two drams to four ounces of water, teaspoonful every hour, to increase the secretion of the urine; and as a tonic they prescribe fraseria car. (American columbo), a half dram largely diluted every four hours.

Remittent fever is characterized by the same symptoms that occur in intermittent fever, but the temperature continues elevated during the interval, and there is a remission toward morning. It may last from three days to three weeks. Many such cases are misdiagnosed as cases of typhoid, and if they stop in three days are claimed to be aborted.

During the past summer my partner, Dr. Mueller, and I treated nearly a hundred cases of this type of malarial fever. Prescription No. XI for adults proved itself very efficacious, and we relied on it almost altogether. In all cases we treated the symptoms that occurred in different cases, and gave calomel or blue mass for the bowels and kidneys as a routine measure.

Quinine, even if given in enormous doses and continued for several days, seems in my experience to have very little effect in cutting short

an attack or paroxysm of remittent fever. The proper time to give quinine in cases of remittent fever is toward morning, when the remission is expected to occur.

Such cases often end in the typhoid state, in lobar pneumonia, and other diseases, in spite of all the quinine we dare to give, showing, undoubtedly, that the toxins in the blood, put there by the action of the *plasmodium*, are the cause of the trouble. And, as we have before argued, on these toxins quinine has no action. The system must have time to throw off these toxins, and all we can do is to prevent the creation of new ones by trying to eradicate the cause of them. So we give quinine, and I refer the reader to the paragraphs in this article giving combinations of quinine with other drugs.

In cases of remittent malarial fevers, in which the stomach is in such a condition that quinine can not be given, and the fever must be overcome, we must employ quinine by hypodermic injection. The following solution is recommended:

No. XXX. R Quinine muriate, gr. xlv;
Antipyrine, gr. xxx;
Distilled water, 3jss.

M. Boil the water in a clean test-tube, and add the ingredients; filter while hot through sterile paper.

Sig: Inject from fifteen to thirty drops, and repeat if necessary.

Typho-malarial fever is in my opinion not a distinct or special disease. It is a typhoid fever with a malarial complication, or it is a remittent fever ending in a typhoid state. In regard to the treatment, quinine seems to have little influence in cutting short the disease. Much better results may be expected from repeated doses of calomel, salines, or antiseptics, and treating of the symptoms, which vary in different cases.

Pernicious malarial fever is supposed to be due to a greater intensity of action or of concentration of the micro-organisms, or to a greater susceptibility on the part of the patient (most likely), or to an accumulation of toxins caused by the plasmodium and which the system does not or can not get rid of. It is very fatal. I met with one case where the temperature rose to 108° F. an hour before death, the patient having been comatose for several hours. As to the treatment, quinine hypodermically, treat the symptoms, and be prepared for the worst, seems about all that the therapeutics of the present can offer us. In cases of a congestive type bleeding would not only be proper but also highly to be recommended.

This type of malarial fever, formerly very common in Southern Indiana, and popularly known under the name of "congestive chill," has become exceedingly rare. It is a condition much to be dreaded by the physician.

Chronic malaria, or malarial cachexia, is brought on by repeated attacks of intermittent fever, and is no doubt a chronic poisoning of the system. The face is pale, and the skin has a muddy or yellowish hue. There may be jaundice, anemia, and disordered digestion; the tongue is flabby, and covered with a thick, white coating, giving a bad taste and a bad breath. Bowels are generally constipated, but there may be diarrhea. Hands and feet are cold, and there is mental depression and lassitude.

The spleen is melanotic and enlarged and may be distinctly felt by abdominal palpation. There may occur symptoms, especially in extreme cases, of a scorbutic condition, dropsy, liver diseases, dysentery, tuberculosis, and in fact almost any thing.

Those are the severe cases. But there is also a condition that may be called a chronic intermittent fever, consisting of cases of intermittent fever in which the paroxysms recur at regular intervals for weeks or months. In such cases the body may be seemingly well nourished, and there are no distinct symptoms during the intervals. Such cases are in fact numerous, especially among adults.

The condition of chronic malaria needs (1) anti-malarial, (2) tonic, and (3) hygienic treatment. In these cases quinine *alone* is of so little worth that it will not be considered *alone*. The first step in the treatment is to stop the recurrences of the paroxysms. This can be done by what may be called the mixed treatment, which may have to cover the period of several weeks. Then the anemia and the cachectic condition must be relieved by means of arsenic, iron, and the tonics. The bowels must be regulated, the diet must be carefully considered, hygienic directions must be given, and any special symptoms in individual cases must be taken care of.

To stop the recurrence of the paroxysm use any of the following:

| | | | |
|-----------|---|----------------------------|--------|
| No. XXXI. | R | Pil. carb. iron, | 3j; |
| | | Ac. arsenious, | gr. j; |
| | | Quinine sulph., | ʒij. |
| | | M. ft. capsules, xx. | |

Sig: One pill three times a day.

Prescriptions Nos. XI, XII, XIII, XIV, XXVI, and XXVIII are also to be considered.

No. XXXII. R Piperine, gr. xl;
Cinchona bark, po., gr. xl;
Confect. roses and acacia, po., q. s. Make 40 pills.

Sig: One pill every two hours.

No. XXXIII. R Warburg's tincture, in mixture or in pill form.

No. XXXIV. R Chinodine, ℥ss.;
Subcarb. iron, ℥ij;
Aloes soct., ℥ij;
Capsicum, po., ℥j;
Fowler's solution, ℥vj;
Whisky, ℥vij.

M. Sig: Teaspoonful three times a day after meals.

No. XXXV. R Piperine, gr. xxx;
Cinchonidia, gr. lx;
Quinine sulph., gr. xxx;
Lactate iron, gr. ij;
Arsenious acid, gr. ij;
Honey, q. s.
M. ft. pil. lx.

Sig: Two pills every two hours till ten are taken. Repeat in several days.

No. XXXVI. R Cinchonia sulph., ℥ss.;
Liq. potass. arsenitis, ℥jss.;
Tinct. iron muriate, ℥ss.;
Syrup ginger, ℥jss.
Distilled water, q. s. ad. ℥iv.

M. Sig: Dessertspoonful after meals.

No. XXXVII. R Chinoidine, ℥iv;
Alcohol, Oij;
Cinchonidine, ℥j;
Ac. sulphur arom, ℥ij;
Fl. ext. cimcifuga, ℥j;
Fl. ext. xanthoxylum, ℥j;
Fl. ext. leptandrin, ℥j;
Tinct. gaultheria, ℥j.

M. Sig: Half ounce every two or three hours.

No. XXXVIII. R Quinine sulph., ℥j;
Resin. podophyllin, gr. iv;
Sulph. iron exsic., ℥j.
M. ft. pil. xii.

Sig: One or two pills three times a day.

To combat the anemia some preparation of iron should be given after meals, except the syrup iodide iron, which if it is indicated should always be given before meals. Arsenic, preferably the Fowler's solution, may be combined with Huxham's tincture of bark or other remedies, and given after meals.

In children the following tonic may be of benefit :

- No. XXXIX. R Quinine sulph., gr. xl;
 Tannic ac., gr. xx;
 Camphorated tinct. opium, ℥ss.;
 Tinct. cinchon., ℥ss.;
 Spts. lavendula comp., ℥ij;
 Syrup, ℥iv.
 M. Sig: Teaspoonful.

If the spleen is enlarged give, besides other treatment indicated, ergot internally and tincture iodine, ointment compound of iodide of potassium, ointment of biniodide mercury, or belladonna plaster externally. The following is a good ointment for this purpose:

- No. XL. R Iodide of lead, gr. lxxv;
 Iodide pot., gr. xxx;
 Ext. belladonna, gr. xxx;
 Lard, ℥xij. M.

For the cleansing of the chylopoietic system in chronic malaria do not use calomel or blue mass, but reserve their use for the acute forms of malaria. The aloin, belladonna, strychnine, and ipecac pill, cascara sagrada mixture, or one of the following will give good results:

- No. XLI. R Magnesia sulph., ℥ij;
 Ac. sulphuric dilut., ℥ij;
 Ext. licorice, ℥j;
 Boiling water, Oj.
 M. Sig: Two or more teaspoonfuls with water.

- No. XLII. R Podophyllin, gr. j;
 Leptandrin, gr. ij;
 Iridin, gr. j;
 Ext. nux. vom., gr. j;
 Capsicum, gr. j.
 M. ft. pil. xl.

Sig: One or two three times a day.

There may many conditions arise in the malarial condition, the treatment of which must be considered as they appear. But to discuss them would necessitate the writing of a book.

In conclusion I would say, examine your cases carefully, study them individually, consider each symptom, and treat the cases accordingly. Do not follow blindly the use of the prescriptions I have given, but also do not scoff at well-tried combinations of remedies, and call them "shot-gun prescriptions." Remember that we but imitate nature

when we combine different remedies to combat diseases. He who prescribes opium uses a combination of eighteen different alkaloids.

The prescriptions I have presented in this article are taken from my note-book, which contains over four thousand prescriptions culled from the readings of over twenty years. Many of them are therefore old, but it is not always the new that is best.

JASPER, INDIANA.

ABSCESS OF THE MASTOID, WITH REPORT OF A CASE.

BY G. A. WHITLEGE, M. D.

In writing a paper on abscess of the mastoid process it would probably be interesting to some to give a brief historical sketch of how and for what conditions the pioneer aural surgeons were led to open the mastoid. From a research of the literature at my disposal I find none as satisfactory as the statistics compiled by D. B. St. John Roosa. The following is taken from his text-book on diseases of the ear.

Riolanus in 1649 was the first to suggest such a procedure, which he did for occlusion of the eustachian tube for the purpose of removing, by injection through the opening, morbid secretions from the mastoid cells and cavity of the tympanum.

Rallfink afterward, in an anatomical dissertation published at Jena in 1656, also advocated the operation.

J. L. Petit in 1750, according to Von Troltsch, was the first who actually performed the operation, which he did by means of a gouge and hammer.

Valsalva has the credit of being the next to open the mastoid process; but according to Roosa he only injected an existing fistula in the mastoid, the fluid passing into the tympanum thence through the eustachian tube to the fauces, with what effect he does not state.

To Jasser is due the credit of opening the mastoid as a legitimate surgical procedure. He was a regimental surgeon, who in 1776 first performed it. His patient was a soldier who for many years had suffered from suppuration and pain in the ears, which was not relieved by active but judicious antiphlogistic treatment. In this case there was an abscess of the mastoid and death of the bone, and the operation was performed under indications which would lead any surgeon of the

present day to do a mastoid operation, although Wilde classed it in the list of the same operations as "obstinate deafness."

Weber in 1825 did the operation for caries of the bone, but, as Roosa states, with great anxiety, for fear it might not be good surgery, although the symptoms in the case would not allow us at the present time to hesitate one moment. His patient recovered.

Von Troltsch in 1861 reports a case of acute suppuration of the middle ear, with perforation of the membrani tympani, in which he opened the mastoid with a probe some days after he had made Wilde's incision, with only partial relief.

Hermann Schwartze in 1863 performed the operation on a babe fifteen months old which had suppuration of the middle ear. The mastoid in his case was swelled and fluctuating. Wilde's incision was made and pus escaped. Some days later, on examination with a probe, he found rough, exposed bone which was readily perforated; a teaspoonful of pus escaped. The patient died in six weeks after he saw it.

Ludwig Mayer in 1864 appears to be the first German surgeon who performed a mastoid operation after Troltsch's suggestion.

L. Jacoby in 1868 began to give the medical world some literature and to report cases.

Pagenstecher reports four cases about the same time. Flaitz in 1867 reports some cases, as does Kessel in 1869. In the same year Koffe and Schwartze report a case of caries of the temporal bone cured by an operation on the mastoid. Roosa reports his first case in 1870. A. H. Buck in 1873 published six cases from his own practice, together with a table of cases reported previous to his own operations.

According to Roosa it appears that since about 1873 the opening of the mastoid has been performed with more certainty as to the technique of the operation, also with a clearer understanding of the principles underlying the art of aural surgery.

The pioneer aural surgeons performed mastoid operation for conditions that could not be benefited by such an operation, chronic middle ear catarrh and deafness, caused no doubt from affections of the nerve.

Abscess of the mastoid bone is of strictly a surgical nature, and should be treated as such. The general practitioner does not as a rule consider acute or chronic suppuration of the middle ear of very great importance, oftentimes advising his patient to do nothing, as it is dangerous to stop a running ear. It is these neglected cases that result in abscess of the mastoid; it may occur, however, when all possible means have been used to ward off this serious complication.

I think chronic suppuration of the middle ear should be looked upon with special interest, as pus retained in the middle ear cavity is very prone to make its way through the antrum of the mastoid into the pneumatic cells of the process and by its presence set up an active inflammation and subsequent death of the bone.

In a certain number of cases of abscess of the mastoid the outer table seems to break down readily, establishing sufficient drainage to prevent what might otherwise prove a fatal complication, either from meningitis, brain abscess, or thrombosis of the lateral sinus. In recalling the number of cases I saw while attending the different eye and ear hospitals in New York City, I think, with a condition as stated above, that it is dangerous to wait for nature to rid the mastoid cells of pus and dead bone, remembering the close proximity of the brain and large blood-vessels.

CASE. Mary K., age ten, had, at four months of age, acute suppuration of middle ear on right side. No special treatment was instituted, but the discharge ceased in a short time. For the eight succeeding years she had repeated attacks of earache, with discharge of pus for a few days, then to cease again. In the fall of 1894 her ear began to discharge again; it continued for some months when she was sent to me for treatment. On examination I found a large perforation in the anterior and inferior quadrant of the membrani tympani with profuse discharge. I treated her for about three months in the usual way, with a cessation of the discharge. It remained in this condition for about seven months, when the discharge suddenly returned. I again put her under treatment for about four weeks. On April 20, 1896, she was seized with acute pain in the ear with tenderness over the antrum of the mastoid. By the use of hot applications, mustard poultices, and a small amount of opium the pain ceased in twenty-four hours. She did not suffer any more pain, but the mastoid remained tender. There was never at any time any redness or swelling of the part. The ear continued to discharge freely, but for want of more prominent symptoms I hesitated to operate. In a few days the canal was filled with granulations, with a perforation in the posterior wall leading to the mastoid, from which pus was freely escaping.

She was at this time apparently in good health, so far as her general condition was concerned, but the mastoid remained tender. I explained the condition to the parents and they readily consented to an operation, and on May 27th I operated. After having her anesthetized

I proceeded to clear the canal of all granulation tissue. Then, making the Wilde incision over the process down to the bone, I separated the tissues well back on either side, exposing the bone sufficiently to give ample room for chiseling. With a chisel and mallet I made an opening about three fourths of an inch long by one half of an inch wide. The outer table was firm and healthy and rather thicker than I expected. On reaching the cavity about one half a dram of pus made its escape. The opening was enlarged with a sharp spoon and all pus and granulation tissue removed. The opening was carried inward, forward, and upward until the antrum of the mastoid was reached, attaining a depth of one and a quarter inches. Having curetted the cavity thoroughly I washed it out both through the wound and canal. Packing it well with iodoform gauze and applying a bandage she was put to bed. She rallied from the operation nicely and soon felt comfortable. The dressing was removed on the third day, finding the wound clean and healthy. It was dressed every second day until the healing process was complete, which was about six weeks.

This case illustrates the importance of an early diagnosis of mastoid complication and applying appropriate treatment. This little patient was apparently in good health, but it would have been only a matter of time until she would have died either from meningitis, brain abscess, or thrombosis of the lateral sinus.

ANDERSON, IND.

GUNSHOT WOUND; REPORT OF A CASE.

BY W. D. HOLLEMAN, M. D.

On the 25th of November, 1894, I was called to see P. H., a mulatto, aged about fifteen, who had been shot accidentally. The load (of squirrel shot) took effect on the right side at a point midway between the nipple and the middle of the clavicle and, ranging upward, struck the clavicle near the middle, producing a splintery fracture of the bone at that point. The load carried away all the tissues, including about two inches of the bone and periosteum, which were in its track. The force of the powder detached the periosteum from the anterior and inferior surfaces of the inner fragment as far as the joint, and the outer end of this fragment was driven upward into the neck. The orifice of entrance was something larger than a half dollar, and that of exit was about the size of the palm of the hand. From the entrance to the

clavicle the track appeared very much like an auger-hole, being smooth and standing open; and from a level with the lower border of the clavicle to the surface above, the wound spread out and was somewhat funnel-shaped, being clean-cut and smooth, with the exception of a number of splinters of bone from one half to two inches long, which were sticking in the soft tissues. The right arm was pulseless, cold, and numb from the shoulder down. The skin around the entrance was powder-burnt, and the entire surface of the wound, including the fissures in the bone, was blackened by the powder.

The inner fragment of the clavicle was split, splintered, and so badly damaged that we decided to remove it. Dr. R. B. Longmire assisted me in the operation; Dr. A. H. Galloway gave the anesthetic. An incision was made from the inner margin of the wound along the natural site of this part of the clavicle to a little beyond the joint. The periosteum was carefully separated from the superior and posterior surfaces and the fragment disarticulated and removed. The splintered end of the outer fragment was sawed off, the splinters of bone removed from the soft tissues, and the lower portion of the wound laid open. The wound was then thoroughly cleansed with sterilized water, followed by a bichloride solution, 1 to 2,000, the surface dried, dusted with iodoform, and packed with iodoform gauze. There was so much loss of tissue the wound could not be closed. After the operation was done and dressings applied so as to raise the outer fragment of the clavicle, the right arm regained its circulation, warmth, and sensation. The dressings were changed every day for a few days, and afterward every other day. The discharge from the wound resembled synovial fluid, and was very free for several days. There was no pus, no fever at any time. The wound healed by healthy granulation from start to finish.

Five weeks after he was wounded the lad began to do light work, and during the year 1895 he made a regular hand on the farm, having good use of his right arm. About ten months after the operation I saw him, examined the site of the wound and found that a new bone had formed in the place, and about the size and length of the fragment destroyed and removed, forming a joint at the sternum and being firmly united to the outer fragment of the old bone, thus making a clavicle to all intents and purposes as good as the original one. The new bone was not curved as much as the old one.

This case is unique to the writer, on account of a new bone forming in an open wound, which was packed from time to time through

the entire treatment, and which healed by granulation from beginning to end; the bone being removed, two inches of which, together with its periosteum, being blown away. I noticed during the process of healing a yellowish, gelatinous substance, extending along the site of the old clavicle at the bottom of the wound, which was finally covered in by the granulations forming the soft tissues.

LANEVILLE, TEXAS.

Reviews and Bibliography.

Ptomaines and Leucomaines, Toxines and Antitoxines, or the Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHAN, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry in the University of Michigan, and Director of the Hygienic Laboratory, and FREDERICK G. NAVY, Sc. D., M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. Third edition, revised and enlarged. 604 pp. Philadelphia and New York: Lea Brothers & Co. 1896.

One of the most rapidly developed doctrines in medical teaching of the last few decades is the relation of the poisonous products of bacteria to the production of disease. Among the foremost and fairest among the investigators in this department stands Prof. Victor D. Vaughan. In this work, in connection with Dr. Navy, he has given us the most interesting conspectus of the whole question yet produced. The work gives a fair and full *resumé* of what has been accomplished among the vast number of experimenters in the way of discovering the nature of the poisonous principles in vegetable and animal matter, whether living or dead, and the action of bacterial products in producing immunity or cure.

No one reading these pages without prejudice can doubt that much has been accomplished in the way of conferring immunity against many forms of disease and of poisons. The trouble is that so much has been claimed that is known to be false that the temptation is great to reject the whole.

If only the remaining years of the century would give us a culture fluid, or a serum, or a conscience, or any thing absolutely fatal to liars, which every one engaged in the production of serum remedies could by compulsion be tested by, what infinite waste of labor, what infinite disappointment might be avoided to the incoming century!

Practically a law should be passed by Congress or the States allowing no pretended remedy in this line, or any other line for that matter, to be advertised for sale until tested and approved by some such institution as Johns Hopkins University, or, better still, by some great university established by the Government.

The reviewer has felt a personal interest in the conclusion of Prof. Vaughan that immunity, in whatever way acquired, is essentially an action of the cell, he having for more than a score of years contended that it found its analogy in bees fighting against moths, or other animals resenting irritation. Primarily all thought comes from cells, at most individual cells working together, and experiment justifies reason in concluding that the cells of one who has had smallpox, say, spring to resentment on a second invasion of smallpox virus, just as the cells of the mastiff elaborate revengeful thoughts for him against a repetition of injury.

The whole work before us reads like a romance, treating in the interesting way it does of a subject freighted in all likelihood with so much of good to humanity.

D. T. S.

Anatomical Atlas of Obstetric Diagnosis and Treatment. By OSCAR SCHAEFFER, M. D. With one hundred and forty-five illustrations. 234 pp. (Wood's Medical Hand-Book Series, No. 4.) Price, \$15 for the set of three. New York: William Wood and Company. 1896.

This series of Atlases upon various branches of medical and surgical science, for accuracy, beauty and compactness, probably surpasses any thing of the kind heretofore produced. The plates, printed in colors, some of them requiring twenty-one impressions of various shades and tints to secure the proper effects, have been prepared by one of the largest and most celebrated chromo-lithographers in Bavaria. The arrangements which have been made for the production of these beautiful plates were such as not only to insure the highest artistic excellence but also to enable the publishers to sell the volumes at a price which has never before been equaled or approached for cheapness. They seem to have accomplished in most cases all that can be accomplished by illustration.

The volumes each contain from fifty to seventy-five or more full-page plates, many of them comprising several figures, together with an appropriate descriptive text and a condensed outline of the subject to which it is devoted. These books are uniformly about five by seven and a half inches in size, most convenient for ready use and reference.

The descriptive matter for each plate is always printed on the page facing it, for convenience of study. These Atlases have every desirable feature of the large works that have been the vogue, without their cumbersome, and with hardly more than a tithe of the cost.

D. T. S.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHLOW, M. A., M. D., LL. D., Professor Emeritus of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College of Philadelphia, etc. Ninth edition, revised and enlarged. 866 pp. New York: D. Appleton & Co. 1896.

In declaring that we have not been among the admirers of Bartholow as regards the rosiness of his views on therapeutics, it can not be denied that his work has proved popular, and the frequent citations of it, as well as the appearance of the ninth edition, abundantly prove it. The fault we had to

find was that he appeared to abound excessively in faith. In this, however, he is certainly with the great majority. We desire, however, to quote a couple of sentences from the preface of this edition and modify previously expressed censure a little. Speaking of the synthetic drugs he says, "When, by the substitution process, a remedy is evolved that seems likely to possess certain powers, it is placed in the hand of some friendly investigator to study its physiological actions, and it is then duly exploited by the manufacturer. It is undeniable that many important contributions have thus been made to practical medicine, but it is equally true that many have not sustained the pretensions of their promoters, and have either failed entirely of recognition or have only in part justified the extravagant claims made for them." We sometimes wonder, when we see druggists without even a diploma in pharmacy carrying around a satchel of bottles of various new preparations and telling the doctors what they are to be given for, if it is not almost time for the doctor to look up from his Bartholow or his Hare and ask the visitor, "Who's running this business?" But whether the doctor thinks it best for him to be deceived or only the patient, since one or both must almost necessarily be, he will find this a work of great learning and research, as it is of very great vogue.

D. T. S.

A Manual of Pharmacology and Therapeutics. By WILLIAM MURRELL, M. D., F. R. C. P., Physician to and Lecturer on Pharmacology and Therapeutics at the Westminster Hospital, etc. Revised by FREDERICK A. CASTLE, M. D., member of the Committee for the Revision and Publication of the Pharmacopeia of the United States, etc. 516 pp.

Dr. William Murrell has for many years stood in the front rank of English writers on therapeutics and pharmacology, so that his work, which was really an abstract of his lectures at the Westminster Hospital, at once took high rank and became very popular. Being in the form of lectures, however, it was necessarily marked by more or less of reiteration, and besides it needed some other changes to adapt it to the requirements of American practice. These requirements Dr. Castle has supplied, and has beside added matter relating to climate and the use of mineral waters. It is a work of careful selection and if not so full as some others it has doubtless all that the student is likely to find need of.

D. T. S.

Immunity, Protective Inoculations in Infectious Diseases, and Serum Therapy. By GEORGE M. STERNBERG, M. D., LL. D., Surgeon-General U. S. Army, etc. 323 pp. New York: Wm. Wood & Co. 1895.

In this volume Dr. Sternberg, who from the beginning of his career has been an enthusiastic student of bacteriology, has undertaken to give a summary of the most important experimental evidence in relation to immunity and serum therapy. Full consideration in the first part is given to natural and acquired immunity, while in the second attention is given to protective inoculations and serum therapy in particular diseases. One would rather be inclined to place Dr. Sternberg among those who approach the subject

in a very friendly spirit and regard it in a rosy light. Certain it is that either the authors quoted by Dr. Sternberg ought to be questioned more than he is inclined to, or more followed. If all has been accomplished that they claim, then humanity has a right to complain of the medical profession for withholding the powerful protection and means of cure that has been placed at their command. But, however we may discount the various claims presented, there is certainly enough to give great encouragement and to stimulate to renewed effort. That Dr. Sternberg has brought to the treatment of the subject great ability, the highest order of learning, and a pleasing style need not be said.

D. T. S.

The Ready-Reference Hand-Book of Diseases of the Skin. By GEORGE THOMAS JACKSON, M. D. (col.), Professor of Dermatology in the Woman's Medical College of the New York Infirmary, etc. With sixty-nine illustrations. Second edition, revised and enlarged. 594 pp. Lea Brothers & Co.: New York and Philadelphia. 1896.

In the preparation of the second edition of this book the first edition has been entirely revised, so as to bring the matter down to date, and new sections have been added upon sixteen new diseases, while nineteen new illustrations have been added. While the work may not claim precedence in accuracy of treatment, fullness or excellence of illustration over several others of like compass, the author is blessed with a smooth, flowing style, and the scientific imagination, and writes like one in love with his subject, and not merely as if he had to make a book. With such claims of worth it is not at all surprising that the first edition was well received and rapidly exhausted.

D. T. S.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Second Series, A-Azzuri. 828 pp. Washington: Government Printing Office. 1896.

This, the first volume of the second series of the Index-Catalogue of the Library of the Surgeon-General's Office, includes 6,346 author-titles, representing 6,127 volumes and 6,327 pamphlets. It also contains 7,884 subject-titles of separate books and pamphlets, and 30,384 titles of articles in periodicals. The work is now under the direction of D. T. Huntington, Deputy Surgeon-General and Lieutenant-Colonel in the United States Army.

Functional Disorders of the Nervous System in Women. By T. J. MCGILLICUDDY, A. M., M. D., Consulting Physician to the Italian Hospital, New York, etc. Illustrated by forty-five wood engravings and six chromo-lithographic plates. 367 pp. New York: William Wood & Co. 1896.

The author, Dr. McGillicuddy, is of the opinion that the attention of the profession has of late years been confined too exclusively to surgical gynecology to the too great neglect of medical gynecology. There will be found many who think the author carries the claim of reflex neuroses much too far, but none can justly deny that the influence of many such writers

is needed to head off the mania for gynecological operations all too prevalent. Not only is the book useful, but it is also exceedingly interesting, dealing with a phase of diseased conditions that can hardly be classed in pathology, but rather belong to inverted physiology. The work is gotten up in beautiful style, is interestingly written, and will well repay study.

D. T. S.

Minor Surgery and Bandaging, including the Treatment of Fractures and Dislocations, the Ligation of Arteries, Amputations, Excisions, and Resections, Operations upon Nerves and Tendons, Tracheotomy, Intubation of the Larynx, etc. By HENRY R. WHARTON, M. D., Demonstrator of Surgery in the University of Pennsylvania, etc. Third edition. Thoroughly revised and enlarged, with four hundred and seventy-five illustrations. 597 pp. Philadelphia and New York: Lea Brothers & Co.

In the preparation of the third edition of this work the subject-matter has been carefully revised and a considerable addition of new matter has been made. This especially relates to operative work on the cadaver, such as excisions of the joints, operations upon nerves, tendons, etc. The work is abundantly illustrated with a superior class of drawings.

D. T. S.

Hand-Book for the Bio-Chemical Laboratory, including Methods of Preparation and Numerous Tests, arranged Alphabetically. By JOHN A. MANDEL, Professor of Chemistry in the New York College of Veterinary Surgeons, etc. First edition; first thousand. 101 pp. New York: John Wiley & Sons. London: Chapman & Hall. 1896.

In this hand-book concise directions are given for preparing the most important substances that enter into the composition of the fluids and tissues of the animal body, compiled from the most recent and important works on physiological chemistry. The two hundred or more tests are arranged in alphabetical order.

D. T. S.

Outlines of Materia Medica and Pharmacology. A Text-book for Students. By M. M. BRACKEN, M. D., Professor of Materia Medica, Therapeutics, and Clinical Medicine, University of Minnesota. 383 pp. Price, \$2.75. Philadelphia: P. Blakiston, Son & Co. 1896.

This book is the outgrowth of work arranged under the title of "Outlines of Materia Medica," arranged for the students of the University of Minnesota. This work is not pretentious, but has the advantage of an arrangement which at considerable expense of space gives it the character of distinctness.

D. T. S.

An Atlas of Ophthalmology, with an Introduction to the Use of the Ophthalmoscope. By Dr. O. HAAR, Professor of Ophthalmology, University of Zurich. Translated and edited by ERNEST CLARKE, M. D., B. S. (Lond.), Fellow of the Royal College of Surgeons, etc. Fifty-three pages, with appendix of plates. (Wood's Medical Hand Atlases, No. 1.)

Atlas of Traumatic Fractures and Luxations, with a Brief Treatise. By H. HELFERICH, M. D., Professor at the University of Greifswald. With one hundred and sixty-six illustrations, after original drawings, by Dr. JOSEPH TRUMPP. (Wood's Medical Hand Atlases, No. 3.) 142 pp.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

A Well-known Holbein; Superstition at Belfast; Christmas in the Hospitals; Free Vaccination; Hydrogen Peroxide in Fistula; British Nurses' Association; Louis Pasteur; Microbes in Ice-Creams; Opening of the Davy-Faraday Laboratory.

The originators of the attempt to raise sufficient money to purchase the well-known painting by Holbein, now in possession of the Barber-Surgeons' Company, have had to return the subscriptions already received, as the sum was far short of the £15,000 required. It was proposed to present the picture to the Guildhall Art Gallery.

The city coroner of Belfast has this year had some curious evidence given him. It appeared that a child who was ill was taken to a worker of charms and treated for whooping cough by being passed under the belly of an ass. Special food was given to both.

Christmas Day was a great institution in the metropolitan hospitals. Gifts of Christmas cheer had been received during the previous few days from donors of all sorts and conditions, including Her Majesty the Queen and the Prince of Wales. Several leading physicians and surgeons devoted much time to assisting in entertainments organized by the students and nurses. Parties of amateur musicians lent their aid, visiting the wards, carol singing, while the "Punch and Judy" men were greatly in request for the amusement of the children. The wards were tastefully decorated by the nursing staffs, garlanded with holly and evergreens, color was given by Chinese lanterns, clusters of flags, and colored devices bearing Christmas good wishes. At Guy's Hospital there was an immense Christmas-tree, bearing a supply of toys for the forty boys, fifty girls, and thirty infants who were that day inmates of the institution. A feature which afforded great appreciation was the singing by a party of ladies and gentlemen of Christmas carols set to quaint old English tunes. Santa Claus, in the form of a well-known surgeon arrayed as "Old Father Christmas," wandered open handed through the various wards.

A report is current to the effect that the Government intends to introduce free vaccination into England, and that this is the object of Dr. Thorne Thorne's mission to several continental countries, where a gratuitous system is already in force. Dr. Thorne Thorne's committee has visited Paris and inspected both the Institut Vaccinal and the Academie de Medecine, where lymph is administered free; it has also inspected the Ecole de

Medicine Veterinaire at Brussels, where vaccination is carried out according to a vigorous system, and will now make a tour round the vaccination depots of Germany.

The treatment of fistula by hydrogen peroxide has been attracting some attention. A military surgeon has experimented with hydrogen in the treatment of abscesses and fistulous sinuses which do not admit of being laid completely open to be treated antiseptically. Irrigation with a fifteen-volume solution of peroxide of hydrogen is recommended in such cases. The great development of gas which takes place in consequence of the decomposition of the peroxide when coming in contact with blood or pus removes the pus very effectually. The irrigation followed by proper antiseptic dressing causes a considerable decrease of the discharge, and healing takes place in a remarkably short time. In the case of cachectic patients, when granulation is slow, it is recommended that the irrigation should be occasionally changed for injections of equal parts of balsam of peru and ether. It is necessary to make due provision for rapid and free drainage, as the development of much gas may otherwise produce serious pressure.

A largely attended public meeting had been held under the auspices of the Royal British Nurses' Association to protest against the suggestion to admit asylum attendants to membership and to place them upon the register of trained nurses. Letters were read from matrons of hospitals and nurses in all parts of the country deprecating the change. During the discussion it was claimed on behalf of asylum attendants that they were fully trained in a special branch of nursing, and as members of the Medical Psychological Society were entitled to recognition. Dr. Beaford Fenwick said the British Nurses' Association was established to place upon the register people only who were thoroughly trained and competent, and to place people thereon who were not so trained would be nothing but a deception of the public. The meeting finally decided to petition the general council of the Royal British Nurses' Association not to admit asylum attendants to membership.

Among those present at the placing of the body of Louis Pasteur in the crypt built under the entrance hall of the Pasteur Institute, Paris, were Sir Joseph Lister, President of the British Royal Society, Sir William Priestley, and Doctor George Reid. M. Rambaud delivered a long address, in which he recalled the work done by Pasteur, who, according to Sir Joseph Lister's expression, had thrown light on the dark places of surgery and despoiled it of its terrors. Sir Joseph Lister, speaking in French, recalled the fact that a few years ago he had the honor of presenting to M. Pasteur, on the occasion of his jubilee, the homage and the admiration of all members of the medical and surgical professions. The Pasteur tomb is a copy of the mausoleum of Galla Placidia at Ravenna. A son of M. Pasteur saw it during his travels, and resolved to have one like it built for his father. The sarcophagus is in dark green porphyry granite, a little beyond it being a small chapel with a marble altar. The vaulting is covered with figures, mosaics, and inscriptions.

The Alhambra Theater is about to be enlarged, and the building operations will take in No. 28 Leicester Square, where John Hunter once lived. In 1783 John Hunter erected on this ground, at the cost of £3,000, a large museum for his various collections. This museum was latterly used as a workshop; it is two stories high, with midway a wide gallery, and is lighted by three cupolas in the roof. It was here was instituted in conjunction with Dr. Fordyce the Lyceum Medicum Londiniense. Hunter died in 1793, and was buried in St. Martin's-in-the-Fields. Dr. Frank Buckland, after a long search in the vaults of the church, discovered his remains in 1859, and they were reinterred by the College of Surgeons near Ben Johnson's grave in the north aisle of Westminster Abbey.

Mr. Stephens has recently been investigating the subject of bacteria in ices sold by West End confectioners and in the streets by Italians. From the Italian colony from two to five millions of bacteria per cubic centimeter were obtained, while in strawberry ices purchased at a West End confectioner's the quantity rose from ten to fourteen millions of germs. Mr. Stephens, as a result of his investigations, concludes that it is the quality and not the quantity of bacteria which does harm.

The Prince of Wales the other day duly declared the Davy-Faraday Laboratory open. His Royal Highness was shown an interesting experiment of the freezing of a soap bubble in the vapor of frozen air, so that it dropped like an iridescent egg shell on to the surface of the boiling liquid; an indian-rubber ball was also frozen until it smashed and powdered like glass when thrown against the wall of the theater. The meeting was in every way a success.

LONDON, January, 1897.

Abstracts and Selections.

SERUM-THERAPY AND LUMBAR PUNCTURE.—For one who reads European medical literature to any extent, it is not possible to resist the conviction that the serum mode of therapy is rapidly establishing itself as an enduring principle of wide application in therapeutics. During the past six months all other forms of serum-therapy have been so overshadowed by the antitoxin treatment of diphtheria that knowledge of them is much less universal than it otherwise would be.

The treatment of diseases produced by streptococci has been developed to a considerable extent on the European Continent, and particularly in France, where its introduction was due largely to the labors of Marmorek, Charrin, and Roger. In a case of hemorrhagic septicemia reported by Balance and Abbott in a recent number of the *British Medical Journal*, the infection was so severe that lymphangitis, adenitis, vomiting, chills, high

temperature, scarlet, septic erythema, puffy face and eyes, and mental stupidity, were noticed within the first thirty-six hours after the infection. At the end of the second day the patient's condition became alarming: the temperature was nearly 105° , pulse 150; rash, brilliant red and hemorrhagic, mental hebetude, vomiting, bleeding from the nose and pharynx, and slight albuminuria were present. Sixty hours after infection the first injection was given. Within six hours improvement set in, followed by rapid recovery.

The injections were made into the loin and abdominal wall, and after the first eight (of 3.5 cubic centimeters every four hours) had been given, the succeeding twenty were increased each to contain 7 cubic centimeters. They suggest the possible use of the serum in fracture of the skull in which there is risk of suppurative meningitis, in acute necrosis, acute septicemia and pyemia, rapidly spreading gangrene and cellulitis, erysipelas, general suppurative peritonitis, and in the septic complications of middle-ear disease. They believe that the proper way of administering it is to begin with moderately large doses, 20 cubic centimeters, to give the injections frequently, and, as soon as beneficial effects are manifest, to reduce the dose to about 7 cubic centimeters.

The serum used was from the blood of asses. The ass receives during several months increasing injections of living virulent streptococci. The antistreptococcic serum has therefore antimycotic rather than antitoxic powers. Tests applied to the serum after each injection showed a progressive increase of bactericidal properties. The fact that streptococci may remain in the blood of animals for several days after their infection makes it imperative to remove all chance microbes by filtration through porcelain.

It is well known that the danger of death in scarlet fever is enhanced greatly by the suppurative complications that follow that disease. Baginsky, of Berlin, has put Marmorek's serum to the test in fifty-seven children affected with scarlatina. He says that it is so antipathic to the complications of this disease that it reduces the mortality from thirty to forty per cent.

Josias (*Semaine Médicale*) has had a larger experience with the antistreptococcic serum in scarlet fever. He injected forty-nine children in the first period of the disease, each with 5 cubic centimeters of serum obtained from sheep. With the exception of slight urticaria, no bad symptoms resulted. He also injected ninety-six children with horse serum in the second stage, with an average quantity of 10 cubic centimeters, but some of the patients received as high as 90 cubic centimeters. Complications resulted in twenty-nine of these cases. The mortality in cases which used the sheep serum was only about one half as great as in those in which no serum was used.

It must be remarked that the difference in mortality rates which these writers speak of may be accidental, for not infrequently much greater variations in the death-rate of epidemics of scarlet fever occur, even if the cases are allowed to take their course without particular treatment. If the serum

treatment can be given without danger of any ulterior consequence, and if there are grounds for belief that it may prevent the suppurative complications and sequelæ of this disease, it deserves the fullest trial. Apparently, the only word of warning necessary is that great care be used in the preparation of the serum.

The diagnostic value of lumbar puncture, or of puncture of the subarachnoid space in the lumbar region, is now universally conceded. Weichselbaum has described a special micro-organism which occurs in pairs and quadruplets, lying with their broad sides opposed, not lanceolate, and situated chiefly within the cells. On account of its location the name of *meningococcus intracellularis* was given to this organism. Weichselbaum claimed that it was the cause of meningitis. This claim was contested, but it is now known that the pneumococcus, which for a time was considered the causative element in meningitis, produces a purulent form of that disease, while the intracellular coccus of Weichselbaum is the cause of epidemic cerebro-spinal meningitis. It is between these two forms of meningitis, particularly, that lumbar puncture may be utilized to make the diagnosis. If the fluid withdrawn contains the cocci of the one form or of the other, and if cultures made from it produce the respective diseases in susceptible animals, the diagnosis of the variety of meningitis will be made and the prognosis confirmed, for in epidemic cerebro-spinal meningitis the prognosis is immeasurably better than in the purulent form.

Heubner (*Deut. med. Woch.*) was able by means of an examination of fluid from the subarachnoid space to establish just this distinction. The operation of tapping the subarachnoid space in the lumbar region is such a simple and inconsiderable one, that it is well perhaps to remember that in some conditions, such as tumor or abscess of the cerebellum, it is not unattended by real danger, not to speak of the aggravation of the symptoms which it causes.—*Joseph Collins, M.D., in Medical News.*

BULLETS IN THE BRAIN AND THE ROENTGEN RAYS.—A. Eulenburg (*Deutschen med. Woch.*, August 17, 1896,) relates two cases in which it was possible to localize bullets in the intracranial cavity by means of radiography. Case 1. A man, aged eighteen, accidentally shot himself in the head with a revolver. The bullet entered $3\frac{1}{2}$ cm. above and 2 cm. in front of the attachment of the ear. There was complete unconsciousness until the following morning. On the third day a left-sided homonymous hemianopsia developed, and then a left hemiplegia. The bladder was temporarily paralysed. The hemianopsia disappeared on the tenth day, and the hemiplegia gradually got better, with the exception of the lower part of the leg. The patient was lame, but could walk. At the end of the seventh week Eulenburg found the lower face muscles weaker on the left side than on the right, and also the left arm weaker than the right. The gait was faltering, and the left leg stiff. Movements of the foot and lower leg were only just possible. Sensation was considerably affected. There was pain

in the back of head. Progressive improvement ensued. Eulenburg thought that the bullet had penetrated to the right of the sella turcica, injuring the right optic tract and the right crus. By radiography Buka showed that the ball was in the middle fossa of the skull to the right of the middle line.

Case 11. A man, aged thirty-three, attempted suicide ten years ago. The revolver wound was in the hinder part of the right temporal region. At first there were signs of intracranial pressure. For the first four years only slight symptoms were noted. Attacks of pain in the head supervened, and the patient thought that the bullet must still be present. He was then in an asylum for five years, and discharged as incurable. After his discharge he seems to have been able to work. When seen by Eulenburg the man was pale and wasted. Hardly a trace of bodily or mental symptoms could be made out. There was occasional headache in the right supraorbital and temporal regions. There was thus no clinical evidence that the bullet was still present. It was, however, shown by Buka, by means of the Roentgen rays, that the bullet was situated in the middle fossa of the skull behind the right orbital fissure—Brissaud and Londe (*Sem. Med.*, June 24, 1886,) report a case in which a man had been struck by a revolver bullet (caliber 7 mm.) in the middle of the left frontal eminence on August 4, 1895. Various symptoms followed, and finally a spasmodic left hemiplegia of both limbs and face remained. The upper fibers of the facial, the motor oculi, and the masseteric nerves were not involved. The Roentgen rays showed the outline of the skull, the frontal eminence and sinus, the maxillary sinus, petrous and malar bones, zygoma, orbital cavity, etc. The bullet was seen situated in the posterior region at the level of the second temporal convolution, probably above the tentorium. This position corresponded exactly with the direction of the track deduced by the resulting paralyses. The chief interest, besides the exact localization of the missile, consists in the fact that the bullet, being in the temporal region, could not be the cause of the hemiplegia. The latter was due to the section of fibers met with by the bullet—that is, it had a capsular, not cortical, origin, and therefore could not have been benefited by any operation. An exposure of an hour and three-quarters was given, and the image would have been still clearer but for a slight clonic movement of the head.—*British Medical Journal*.

SANOFORM.—Schlesinger (*Therap. Monatshefte*, September, 1896,) recounts the advantages of sanoform, the latest substitute for iodoform. Sanoform is obtained by the action of iodine on gaultheria oil, and is the methyl ether of di-iodosalicylic acid. It is a white, odorless, and tasteless powder, and can be heated up to 200° C. without decomposing. It is soluble in 200 parts of cold or ten parts of hot alcohol, and readily in ether, chloroform, benzole, and carbon disulphide, but very insoluble in water or glycerine. It forms with caustic alkalies salts which are sparingly soluble in water. It contains 62.7 per cent of iodine. The results of its use in surgery and gynecology are extraordinarily good; healing ensues more

quickly and more certainly than with iodoform; signs of irritation are absent, and the drug is both odorless and non-poisonous. Arnheim has published seventy-two cases, including twenty-two of soft sore, twenty of hard sore, six of bubo, sixteen of phimosis, and three of surgical wounds, and finds that sanoform powder renders a secreting ulcer practically dry in two days, the secretion being soaked up by the powder, and forming with it an antiseptic covering beneath which suppuration speedily ceases. It does not appear that the iodine in sanoform is set free by cell activity; on the contrary, it seems to be extremely closely combined. Fifteen grains were injected under the skin of an animal in fine emulsion, but no potassium iodide could be detected in the urine, in which the presence of iodine could only be proved after evaporation and incineration. The drug is very slowly absorbed; it first appears in the urine about twenty-four hours after injection, and does not entirely disappear for about fourteen days, the maximum excretion being from the third to the sixth day. Sanoform can be used as powder, as a ten-per-cent ointment, or in a one-per-cent solution in colloidion. Schlesinger particularly recommends sanoform gauze (ten per cent), which, owing to the high temperature at which the drug decomposes, can be easily sterilized—a great advantage over iodoform gauze. A further point in its favor is that it contains no coloring matter, and stains neither the tissues nor the bandages.—*Ibid.*

THE INFLUENCE OF PREGNANCY ON DISEASES OF THE HEART.—Jaccoud (*Sem. Méd.*, September 11, 1896,) describes a case illustrating his contention that the existence of heart disease does not in every case, as maintained by Peter, constitute a contra-indication to marriage. The patient in question suffered from a long and severe attack of acute rheumatism before marriage, with signs of cardiac mischief. Two years afterward she married, and was able to go through three successive childbirths and one miscarriage without any distressing cardiac symptoms. After her fourth pregnancy she began to feel short of breath, and after the fifth delivery symptoms of acute asystole with dyspnea and hemoptysis set in. There was no doubt that permanent damage to the heart had resulted from the repeated pregnancies, and a double mitral lesion with tricuspid incompetence was diagnosed. Pregnancy is always liable to cause serious disturbances of the cardio-pulmonary circulation, and to throw additional work on the heart. Patients who suffer from mitral lesions, which rapidly affect the lesser circulation, frequently manifest toward the fifth or sixth month "gravido-cardiac" symptoms—namely, dyspnea and hemoptysis. Still it is obvious that a diseased heart up to a certain point may suffer no inconvenience from pregnancy. A too hard and fast line should not be drawn in advising or withholding consent to marriage. The wishes and ideas of the patient should be considered, and also the depression and injurious effect upon the heart of withholding consent. The degree of the lesion and the absence or presence of gravido-cardiac symptoms should be noted, the

latter forming a decided bar to marriage, though the effect of treatment upon this condition should determine the final decision. The occupation and surroundings of the patient, the possibility of her taking prolonged rest if necessary, should be considered. A milk diet is of great importance; two or three liters should be taken daily from the second or third month of pregnancy. This is a powerful aid to the circulation by reason of its diuretic action, and not only are the gravido-cardiac symptoms warded off, but the appearance of albumin in the urine is prevented.—*Ibid.*

TREATMENT OF ECLAMPSIA.—Mangiagalli (*Annali di Ostet. e Ginecol.*, September, 1896,) in a lengthy paper to which is appended a valuable statistical table, deals fully with the various modes of treating eclampsia. Obstetric treatment in his practice occupies the first place, medical means being regarded as preparatory or adjuvant. Preventive therapeutics are very beneficial in removing the conditions which are the expression probably of the auto-intoxication, and consist in milk and intestinal disinfectants, diuretics, etc. The medical treatment (bleeding, purgation, morphine, chloral, chloroform, veratrum viride, or diaphoretics) is purely symptomatic, but is the only one possible in *post-partum* eclampsia, and in other conditions is a valuable aid to the obstetric intervention. Bleeding, followed by the subcutaneous or endovenous injection of normal saline solution, has much to recommend it, but it has not been employed sufficiently often to enable us to form a just estimate of its value. The speedy evacuation of the uterus constitutes the most important means of treating eclampsia. In *intra-partum* eclampsia it is a good rule to terminate labor when the conditions permit, and even to anticipate these by means of multiple incisions of the cervix. In eclampsia in pregnancy the induction of labor by the rupture of the membranes is indicated along with the use of morphine, or chloral, or veratrum viride in large doses. If these means fail, then forced dilatation of the cervix is to be preferred to the deep incisions of Dührssen. In some very bad cases even cesarean section may be a justifiable operation, especially if the fetus be full time and alive. Every operative intervention must take place with the patient deeply anesthetized.—*Ibid.*

TREATMENT OF PLACENTA PREVIA.—Baumm (*Centralbl. f. Gynäkol.*, No. 39, 1896,) recommends external version in placenta previa, that, the presentation being converted into a pelvic one, the hemorrhage may be arrested by drawing down and keeping up traction on a foot. The version is generally possible, as the placenta prevents the early engagement of the head; after it has been performed, if the os is not sufficiently dilated to admit two fingers, one must, when bleeding begins, apply a tampon and wait; if the genitals are relaxed, it is generally easy, even without an anesthetic, to bring down a foot and by moderate and steady traction to deliver the woman without further loss of blood. If the bleeding be severe and alarming, it is better to employ combined podalic version at once, or to apply a tampon before attempting external version.—*Ibid.*

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"NEC TENUI PENNĀ."

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THE SERUM TEST IN THE DIAGNOSIS OF TYPHOID FEVER.

In daily practice there is no disease the diagnosis of which gives the physician more annoyance than typhoid fever in the first stage. For at least ten days a positive diagnosis is often out of the question, and while the physician may be reasonably certain that he has a case of typhoid in hand, he is afraid to say so lest it should turn out to be something else to the damage of his professional reputation. At the same time the family and friends of the patient show their intolerance of suspense. They are not infrequently importunate in their demands that the fever shall be christened, and if the wretched doctor does not proceed to make at once a diagnosis he is threatened with dismissal, with the probability that some professional brother will be called whose inverted ethics will allow him to push the advantage which such an exigency always gives to the greatest possible damage of the first doctor in the case.

With such gruesome environment the belabored doctor must hail with delight and no common sense of relief any discovery that promises to make the early diagnosis of typhoid fever certain, and place in his hands a scimitar that will enable him to rip open those windbags of pretense which the quacks in the profession so often impose between the honest doctor and his credulous *clientèle*.

When Eberth discovered the typhoid bacillus, the problem promised to be soon solved; but, alas! this proved inadequate, since even the expert in bacteriology finds their "demonstration not an easy matter, for while the bacilli are probably always present in some part of the intestine during the progress of the disease, it does not follow that they are present in every portion of the intestinal contents." Moreover, when found, there seems to be no possibility of confirming their identity by reproducing the disease in animals, and so the practitioner is left in uncertainty as before the discovery.

The next promise was the supposed demonstration of typhoid toxin, by Ehrlich, in the urine. This gave hope for a season, but soon dropped into the limbo of scientific uncertainty.

Last issue, page 78, we published an excerpt from the Boston Medical and Surgical Journal, which calls attention to Widal's serum test for typhoid fever. This observer seems to have noted an effect of the blood serum of typhoid fever patients on typhoid bacilli cultures which, if constant in the incipency or early stage of the disease, will make the diagnosis certain. Observers all over Europe and America are busy pushing the discovery to its furthest limit with some promise of success.

The boards of health in New York and other prominent cities have asked the co-operation of the physicians of their respective cities in procuring serum in all suitable cases, and it is to be expected that a solution of the worth or worthlessness of the test will soon be settled.

A statement of the method of performing the test, as given by Mr. Herbert E. Durham, F. R. S., in the *Lancet* of December 19, 1896, is interesting in this connection. He says:

A note upon the method may be added, since Dr. Widal suggests such heroic measures as removing the blood by means of a hypodermic syringe thrust into a vein of the arm. Ample blood may be obtained from the lobule of the ear without giving pain to the patient; moreover, without contamination with microbes. The lobule of the ear is well cleaned with lysol solution (two per cent), dried, and a small incision made with an ordinary clean bleeding lancet; a fine sterile pipette is applied to the exuding drop of blood. When sufficient blood is obtained (from 0.2 to 0.3 of a cubic centimeter is enough, but more is easily withdrawn if necessary) it is blown out into a sterile test-tube which is held horizontally so that the blood does not flow to the bottom. The test-tube is laid down flat until the blood is thoroughly and firmly clotted; it is then placed upright and the clear serum trickles down to the bottom of the tube; this requires several hours. Clear serum can be obtained more rapidly by allowing the tube to lie horizontally



H. K. PUSEY, M. D.

for about half an hour, and then placing it in a centrifuge, which is driven quite slowly for five or ten minutes; if the rotations are too rapid a certain number of red corpuscles are carried out with the serum, but even then clear serum is obtainable as the corpuscles are driven to the bottom. A dilution containing from five to six per cent of serum is best adapted for testing; this is most conveniently done by taking up from twenty-five to thirty cubic centimeters by means of a graduated capillary pipette and adding 0.5 of a cubic centimeter of the broth emulsion of bacilli in a small test-tube. Measuring may also be done by means of drops, though of course less accurately. The specimens should be examined microscopically in hanging drops after from ten to thirty minutes for the detection of clumps. In general the naked-eye reaction is not so well marked as in the case of highly immunized animals. A sample of the emulsion should always be kept as a control, without the addition of serum. Only young (from twenty-four to thirty hours) and vigorous cultures, preferably on agar, should be used; old and weak cultures often give some clump formation without the addition of serum. Lastly, the emulsion should not contain too many bacilli; a small loopful (from two to three milligrams) is quite sufficient for each cubic centimeter.

Mr. Durham thinks that in recent cases of typhoid fever an absolute diagnosis can not always be obtained by means of the serum test, but this means of diagnosis should not therefore be discarded, nor should it be allowed to fall into discredit by overrating its real value.

Obituary.

DR. H. K. PUSEY, DECEASED.—It is with sorrowful feelings the writer takes up his pen to say a few words in commemoration of his friend, the late Dr. H. K. Pusey. We had known each other over half a century, and practiced our profession as neighbors many years.

The Doctor was born January 2, 1827, at the old Pusey residence near Garnettsville, Meade County, Ky.

He acquired his education mainly at the common schools, and commenced the study of medicine with the noted Dr. Bryan Young, of Elizabethtown, Ky., in 1845. He attended the Louisville Medical University, graduating in 1848, and commenced the practice of medicine the same year at Garnettsville, his native place. He soon acquired a reputation of a high standard, both as a man and a physician.

He, like many other country doctors, had a great many poor people as his *clientelé*, but he never refused to attend them on account of their inability to pay. He, in this particular, believed somewhat with the celebrated

Dr. Boerhaave, who, when asked how he could afford to spend so much of his time among the poor, replied that "God was their paymaster, who remunerated him better than the rich."

The Doctor had a very extensive practice, most of it extending over quite a rough country, but his energy and professional ambition were equal to the task.

The Doctor had attained to such distinction in his profession that in 1884 he was appointed by Gov. Knott as Superintendent of the Central or Lakeland Asylum. He held this position during Gov. Knott's term of four years. He was again appointed to the same office in 1892 by Gov. Brown, and at the expiration of his term, no doubt, would have been retained by Gov. Bradley had his health enabled him to have attended to the duties of the office. He had by this time acquired such a reputation as superintendent, as well as supervisor in the construction and arrangement of the new buildings for the insane, it would have been greatly detrimental to the interest of the State and the welfare of the insane to have removed him. Four county medical societies, where he was well known, either personally or by reputation, passed unanimous resolutions in favor of his retention in office. But unfortunately, both for the interest of the State and welfare of the insane inmates, his health gave way to such an extent as to force him to resign. But before this, during the year 1895, he had completed the new building of the institution which leaves a memento to his work which will last many generations. The structure is known as the Pusey Building, with his name conspicuously inscribed thereon.

On more than one occasion I had the pleasure of visiting and going through the institution during Dr. Pusey's superintendency, and was greatly pleased with the manner in which every thing about the wards was arranged. Too much credit could not be given to his noble daughter, Miss Nellie, for the perfection in which she performed the functions of the matron's office. She kept the wards scrupulously clean and in perfect order.

On his retiring from the institution the Doctor moved to Louisville, but when the weather became warm in June he removed to the home of his son-in-law, W. Lewis, at Garnettsville, where he had the advantage of fresh air and high elevation. His trouble was mainly due to loss of function of the stomach, which gradually grew worse until digestion finally became completely destroyed.

The writer visited the Doctor weekly for a couple of months during his last sickness, and on his last visit conversed with him as to the termination of his disease. I congratulated him on his happy surroundings. All his children and some of his grandchildren were with him to the last, and I can say that I never knew a family more devoted to each other than that of the Doctor's. His wife, though a cripple, did her share of the nursing.

In speaking to him the last time we met I intimated to him how thankful we ought to feel in our last moments to know that we will be kindly commemorated by the loved ones left behind. The Doctor died on the 1st day of September, 1896.

The attendance at the funeral was the largest I ever witnessed, and I have never heard more able and gratifying eulogies passed on the life and character of the departed than were given on that occasion. It so happened that there were present three ministers (Revs. Lawson, Overton, and Allen), members of the same church as the deceased, who were raised in the same place with the Doctor, who had known him from their boyhood up. Each of these preachers spoke of the life and character of the departed, each giving a picture of his life, his kindness to the poor, his liberality as a church member, as well as his standing as a citizen. It was a great comfort to his family and friends to hear such eloquent eulogies passed on their departed friend, especially by those who had known him best, and all of whom had been presiding elders in their church. There were many moist eyes on the occasion.

The Doctor's wife was a Miss McCarty, a daughter of Dr. M. McCarty, who late in life moved to Arkansas, where he lived to be quite old. Mrs. P. was a great helpmate to the Doctor, devoted to her family, and possesses many Christian virtues.

The Doctor left, beside his widow, six children, one son, Dr. Henry Pusey, jr., of Louisville, and five daughters, with a goodly number of grandchildren.

The ancestors of the Pusey family can be numbered with pioneers of the State. Joel Pusey, the father of the Doctor, went to Meade County, Kentucky, in 1820, from Frederick County, Maryland. He crossed the Alleghanies in a wagon to Wheeling, where he took a flatboat and landed where Rock Haven now stands. He located on land near Garnettsville, known as the Pusey place. He had six sons, three of whom studied medicine, and all three attained eminence in their profession. They are a remarkable family. Although their father was comparatively a poor man, through industry and energy they managed to enable three of the brothers to be educated and to study medicine. The elder brother, Evan, is dead, but lived to be quite old. He had two sons who studied medicine, one of whom now lives in Chicago, doing a prosperous business. The second son, William, now seventy-nine years old, still lives on the old home place. Another brother, John R. Pusey, is quite a business man, and has acquired quite a fortune. He deserves a great deal of credit for having assisted his brothers in acquiring their medical education.

Dr. David Pusey, of Brandenburg, has been practicing about forty years, and stands well in his profession. The younger brother, Dr. Robert Pusey, who practiced at Elizabethtown, Ky., died a few years ago. He had acquired a high standing in his profession, both as a physician and surgeon. He left two sons, both of whom studied medicine and now occupy high positions in their profession.

It might be said the Puseys are a family of doctors, and possess a special talent for the profession of medicine.

I had an idea that our family could count up as many doctors as any

other until I learned the number connected with the Pusey family. I think I made out eleven, when I could only count eight of ours.

It can be truthfully said that, although there are so many medical men connected with the family, all have stood well, and some have attained a high degree of eminence.

"Lives of great men all remind us
We can make our lives sublime,
"And, departing, leave behind us
Footprints on the sands of time.

Footprints that perhaps another,
Sailing o'er life's stormy main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again."

T. B. GREENLEY, M. D.

Notes and Queries.

MEDICAL PRACTICE IN ZULULAND.—A gentleman who has recently accepted a Government medical appointment in Zululand has written to us as follows: "Medical practice in Zululand, like all Gaul, is divided into three parts, that by the district surgeons (of whom there are five), that by the Kaffir doctors, and, of course, that by the ubiquitous quack. The two former have to obtain from the Government a license to practice, for which each alike pays a guinea a year. The district surgeons get a salary of £200 per annum and extras, with permission to practice if they take out the license. The practice and extras amount to about £30 a year, as told to me by one of them, who, however, supplements his income by acting as a missionary, and some have £50 a year for conducting a dispensary, at which they must attend all natives at a uniform fee of one shilling. The shilling goes to the Government, which supplies the necessary medicines; the district surgeon, however, is expected to provide surgical instruments. The dispensary system does away with all chance of native practice, which before its institution used to yield a fair income, as the natives can not see why they should pay more than 1s. for private attendance, when they can have attendance and medicine at the surgery for that sum. The term 'extras' means a traveling allowance per mile, outside a six-mile radius, of 1s. out and 6d. return, to obtain which the practitioner has to keep one or two horses and a groom, and must frequently sleep at Kaffir stores, where the charges are from 5s. to 7s. 6d. a night for his horse, 2s. 6d. for his bed, and 2s. 6d. for each meal. This item is therefore a source of loss rather than of profit. No allowance is made for evidence in courts of justice, for inquests, or for *post-mortem* examinations. The white population, including

the military, numbered until recently about 700. I do not think that at present it exceeds 500, and the military surgeon at Eshowe takes what private practice he can obtain. No houses are provided by the Government, and the district surgeon must build a hut, sleep in a tent, or provide a dwelling place as best he can. This in the case of a bachelor and a young man (and no other should be appointed to these posts) is not of such consequence; but for an elderly man, a married man, or, above all, one with children, it becomes a serious matter, as a whole family must crowd together in one room which answers for all purposes in a manner which would not be tolerated in the East-end of London, and besides there are no educational advantages whatever. The collapse of the Nondweni gold-fields (at which place there was until recently a resident surgeon) has sent most of the people there away. This was the only place in Zululand which supported a medical man of its own. Since his departure the N'qutu district surgeon easily combines the practice there with his official duties, although the two places are thirteen miles apart.

"The cost of living in Zululand, principally on account of the very high rate of freight by rail through Natal and by bullock wagon in Zululand, as well as through the mealie famine, the locusts, and rinderpest in other parts of South Africa, is extremely high, in addition to which the Government salaries are very disproportionate to necessary expenditure and much below what is usually paid by others. Tradesmen even, carpenters and blacksmiths, can get from £28 to £30 a month; horseshoes cost 10s. a set. Even young fellows under twenty are drawing salaries of from £15 to £20 a month at the mines, without any trade or profession whatever. The quacks seem to go on the even tenor of their way here as elsewhere, and do a roaring trade, not only at extracting teeth at 1s. each, but at bone-setting, surgery, and the practice of medicine generally, uninterfered with by the Government. Taking one consideration with another the life of a district surgeon in Zululand is, like the policeman's, 'not a happy one.'—*Lancet*.

IMMATURE INFANTS IN FRANCE.—That the threatening depopulation of France is a most serious misfortune against which our neighbors are striving in a variety of ways and with greater or less success, can not, unfortunately, be gainsaid, but even in this lamentable case the old proverb, "'Tis an ill wind that blows nobody good," may be applied with perfect accuracy. A persistently diminishing birth-rate might well be looked upon as an evil out of which no benefit could possibly arise, and yet with respect to one fragile, but by no means unimportant section of the French community, the national unfruitfulness has proved itself to be a veritable blessing in disguise. The heretofore forlorn beings who have thus fortuitously derived benefit from the general calamity are the newly born infants, who from various causes, but chiefly by reason of their premature appearance on the scene, are peculiarly unfitted to withstand "the thousand natural shocks that flesh is heir to." Formerly no very serious efforts were made

to prolong the ephemeral existence of these unwelcome little strangers. They were rather hopelessly allowed to pine away and die, under the impression that they could not possibly survive, but human life has of late become so valuable in France that no breathing waif need now be abandoned as an irretrievable derelict.

Little children have ever been esteemed the most precious of human possessions all the world over, but it was reserved for an energetic Frenchman to set the seal upon this preciousness by conserving the immature specimens in glass cases. That this is simply a statement of fact many of our readers are doubtless already aware, but should there be any questioners among them they have merely to pay a visit to No. 26 Boulevard Poissoniere, Paris, in order to obtain resolution of their doubts by ocular demonstration. At that address, under the designation "*Œuvre Maternelle des Couveuses d'Enfants*," they will find a truly remarkable institution, which owes its inception and development to the zeal and philanthropy of Dr. Alexandre Lion, of Nice. Ruminating one day on the perilous condition of his country from a demographic point of view, it struck this patriotic and humane member of the medical profession that the holocaust among prematurely born infants would be largely diminished if the helpless atoms could only be kept sufficiently warm. Accordingly, in 1891, he invented his *couveuse*, or modified incubator, which may briefly be described as a woven wire mattress suspended in a glass case, the latter being heated by a water coil, and kept sweet and wholesome by a constant inflow of purified filtered air. The success attending on this new departure in infant life preservation has been surprising. A prematurely born child, if exempt from hereditary disease, never dies in Dr. Lion's institute, provided it weighs not less than two and a quarter pounds, that is, about one third of the normal standard, and provided, also, that its installation in the *couveuse* is accomplished with the least possible delay and exposure. At this stage of the untimely bud's frail existence a chill is almost certainly fatal, so that the transfer from the lying-in bed can not take place too soon or be carried out too carefully.

The theory that immature infants require exceptional warmth is, of course, not a new one. Every midwife knows the importance in such cases of immediate swaddling; and children born before their time, whose survival was regarded as well-nigh hopeless, have ere now been saved by such devices as enwrapment in newly-flayed skins, the utilization as cradles of freshly eviscerated sheep and goats, etc. The inventor of the *couveuse*, nevertheless, amply deserves the lion's share of the credit, not merely on account of his ingenious amplification of a well-known principle, but also for his untiring advocacy and capable organization.—*Ibid.*

BROMOFORM POISONING.—Börger (*Münch. med. Woch.*, May 19, 1896,) first gives short notes of twelve cases of bromoform poisoning, and adds an account of two cases under his own care. The age of the patients varied from three months to five and one half years, and the dose of bromoform

from 15 to 20 m. up to 6 g., but the larger doses did not correspond to the higher ages. There was one death, and in that case neither the age of the patient nor the dose was known. As regards the symptoms, sudden unconsciousness, pallor of the face, and blueness of the lips occurred a few minutes after the taking of the poison. The pupils were contracted, and did not react to light. The muscles were usually flaccid, but the masseters contracted. The heart sounds were feeble, irregular, and frequent. There was a strong smell of bromoform from the mouth. From a pharmacological point of view the action of bromoform has not been thoroughly worked out. Nolden says that the first and most important toxic action is exercised upon the sensorium and respiratory centers, hence the unconsciousness and symptoms of asphyxia. The heart's action is also alarmingly affected. As regards the treatment, attention must chiefly be given to the heart and lungs. The heart is stimulated by injections of ether and camphor. As regards the respiration, the head should overhang, the mouth be kept open, the tongue drawn forward, and the mucus cleared out of the larynx. Artificial respiration and faradization of the phrenic nerves should be adopted. There is no specific antidote, but perhaps small doses of morphine or inhalations of amyl nitrite, as in chloroform poisoning, might be of service; but further experimental research is required in this matter.—*British Medical Journal.*

HEMOGLOBINURIC FEVER.—Ferrier (*Lyon Medical* July 5, 1896,) describes the case of a man who contracted malaria in Madagascar, and, returning to France, died of an acute attack of hemoglobinuric fever. At the necropsy the liver weighed 2,100 g., and showed acute diffuse hepatitis; the spleen—20 × 14 cm.—was enlarged and showed thickened trabeculæ, but contained less yellow pigment than is ordinarily seen in malaria. The kidneys were congested and showed hemorrhages into the uriniferous tubes; in the dilated vessels of the organ some of the blood corpuscles were normal, others had broken down. The lesions had not destroyed the vitality of the organs, and so do not account for death, which was rather the direct result of extensive destruction of red blood corpuscles. The blood destruction does not take place in the kidneys. The liver and spleen being unable to deal with the products of the destruction of the blood cells, the kidneys vicariously excrete the free blood pigment.—*Ibid.*

SILKWORM GUT IN GYNECOLOGY.—Bröse (*Zeits. f. Geburts. u. Gynäk.*, vol. xxxiv, part 2,) removed a double pyosalpinx two years ago, and set free the uterus, which was retroflexed and fixed. The fundus was sutured to the abdominal wall by silkworm gut, which had been disinfected in a five-per-cent solution of carbolic acid. The abdominal wound did not entirely heal by first intention, although there was no distinct evidence of infection, and the temperature never rose above 101° during recovery. A fistulous track remained. Bröse frequently curetted it, but could find no trace of the

suture. He at last opened the parietes close to the cicatrix. The fistula led to a band about half an inch broad, composed of uterine muscular tissue. He excised this band, together with the tissues in the parietes around the fistulous passage. The band contained the silkworm gut. It had only been passed through the parietal peritoneum anteriorly. Olshausen insists that silkworm gut ought to be kept in an antiseptic medium.—*Ibid.*

FRIEDREICH'S ATAXIA.—Zabludowski (*Berl. klin. Woch.*, August 24, 1896,) showed a case of Friedreich's ataxia before the Berlin Medical Society which had been considerably improved by massage. The author refers to the great rarity of this disease as seen in Berlin. The patient was nine years old, and there was no other case in the family. She walked unsteadily, with the legs apart, and had difficulty when eating in carrying the spoon to the mouth. There were choreiform movements in the arms, and under certain conditions a lateral nystagmus. The pupils reacted to the light. The speech was slow and difficult. The knee-jerks were absent. There were no pains and no disturbance of sensation. The rectum and bladder were unaffected. There was no curvature of the spine. By means of systematic massage, combined with passive and active movements, as well as movements against resistance, the use of the limbs was considerably improved. The parts less affected by the disease were thus stimulated to greater activity. Mendel also observed the case during the treatment.—*Ibid.*

THE SERUM TREATMENT OF SYPHILIS.—Prof. Boeck, of Christiana (*Archiv für Dermatologie und Syphilis; Wiener Medizinische Blätter*), resumed the serum treatment of syphilis in 1894, using the fluid removed from the tunica vaginalis in cases of hydrocele in syphilitic men. He comes to the following conclusions: (1) The symptoms of the primary period are more rapid in their involution than under the expectant treatment. (2) The secondary symptoms are somewhat delayed. (3) They are decidedly mitigated, so that the rash is hardly noticeable and the affections of the mucous membranes are strikingly slight. (4) The general condition is speedily improved. (5) The stage of secondary eruption is shortened. (6) The treatment is the more effective the earlier it is begun. (7) Serum from a person in the tertiary stage is more efficient than that from a person in the secondary stage. Although on the whole the serum treatment is not so effective as the use of mercury and iodine, it is deserving of further trial, and may be regarded as a useful auxiliary.—*New York Medical Journal.*

THE SOUTHERN KENTUCKY MEDICAL ASSOCIATION will hold its fifth semi-annual meeting in the city of Hopkinsville, Ky., Wednesday and Thursday, April 14th and 15th. An interesting program will be arranged. Accommodations on railroad and at the hotels at reduced rates. All physicians are cordially invited to attend.

(Signed) B. W. SMOCK, M. D., *Secretary.*

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XXIII. LOUISVILLE, KY., FEBRUARY 20, 1897.

No. 4.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE PRESENT STATUS OF THE SERUM TREATMENT OF DIPHTHERIA.*

BY WILLIAM CHEATHAM, M. D.

Professor of Diseases of the Eye, Ear, and Throat, in the Louisville Medical College.

As there have been over one million injections of antitoxin made up to this time, some proper conclusions as to its use and results are being arrived at. It has reached such a stage that an assertion made many months ago "that it is criminal to treat a case of diphtheria in its early stage without antitoxin" can be justly repeated with increased vehemence.

Such investigations have been made as to render positive assertions as to its efficacy possible. The fight between the exponents and opponents of the serum treatment of diphtheria was at one time too vindictive and too personal to be of any scientific advantage; as the hot-heads have cooled down enough to analyze facts, they have come to realize the truthfulness of the saying of Virchow early in the fight. All the arguments of the opposition have been met and silenced, except a very few, and even those who advanced such arguments are now, in pool-room vernacular, "hedging."

We can not yet claim it as a specific, yet Jacobi, who at first opposed the use of the serum, says in a recent article, "It will be entitled to be claimed as a specific, though it has not the power to cure every case of diphtheria, any more than quinine cures every case of malaria, or

* Read before the Louisville Medico-Chirurgical Society, January 8, 1897. For discussion see page 134.

mercury of syphilis." Many say, if injected the first day of the disease, no case need die.

My experience with it has been exceedingly favorable. Of the many cases in which I have used it, there have been exceedingly few deaths, and my dread of diphtheria has decreased to such proportion as to render me very much less worried when called to see a case. It does not do away with other treatment, as many suppose, but does away with so much of it as to render it almost *nil*, not only as to quantity but as to perseverance and severity. A case seen in the last few days will illustrate what I mean. All cases do not end so, but it is more the rule than the exception.

J., a girl five years old, had had diphtheria, so far as known, two days; she was quite hoarse; pulse weak and irregular; a typical membrane was on the palate and pharynx; it was a typical case of diphtheria of the pharynx, soft palate, and larynx; a case in which, without antitoxin, I would have immediately advised intubation. I gave her 4 c. c., or 1,000 units of serum, injecting it into the outer part of the left thigh. I first washed the part well with alcohol, and used ethyl chloride as a local anesthetic; with this the injection gave little or no pain. A five-per-cent solution of carbolic acid can be used instead of the alcohol; it is not only a good cleanser, but also a local anesthetic. My needles I wash in the same solution. After the injection no pressure was made to distribute the serum. The part was again bathed with alcohol, and a small piece of cotton with alcohol on it placed over the wound, and held in place by an adhesive strip. No reaction whatever followed. All membrane in sight was gone the next day; pulse was good, temperature about normal; patient with a good appetite, and voice nearly clear in three days. As I stated before, this is not an exceptional case. The little patient made a good recovery.

If the general practitioner who usually sees these cases first will early in the disease make or have made a serum injection, the above history will be much more common than it is now. Do not wait for a bacteriological investigation. The serum, if fresh and pure, and if properly injected, is harmless; and a membrane in a throat with no history of trauma means, in ninety-five cases in a hundred, diphtheria—so why wait. As to the objections urged against the serum treatment of diphtheria, all of them have been about swept away by the investigations and conclusions of 1896. A few deaths have been attributed to its use, but not proven. Five, I believe, in over one million of injections, and not

one which could be proven beyond any doubt as the result of the serum. It is true, death might not have occurred in three of the cases had not the injection been made. Even admitting that five or twice five deaths had been the direct result of the serum injection, who of us would not take such a chance? Some of these cases were very sad indeed, cases in which the injections were made for immunity; this, I think, is unnecessary in a majority of cases, as there are no better immune agents than fresh air and sunlight.

Still reports as to immunizing are very encouraging, as will be seen from the following, which is from Dr. Biggs' last report, *Medical News* of New York, December 26, 1896: Number of cases 17,516. Of these there were 109 attacked with mild diphtheria in thirty days, and 1 fatal. After thirty days there were 20 mild, and 1 fatal; or in 17,516 cases there were 129 mild cases and 2 fatal, which I think is a great result. The other statistics of Dr. Biggs seem to me to be unanswerable. For instance, in 79,085 cases treated by antitoxin in different parts of the world, the death-rate was about 16 per cent; in cases treated without antitoxin the death-rate was between 30 and 40 per cent. Or, take another series of cases: In a total of 2,930 cases treated with antitoxin 436 died, giving a mortality of 14.9 per cent, while of 3,625 cases treated without antitoxin at the same time, or during intervals of forced interruption (owing to lack of antitoxin), 1,455 died, a mortality of 40 per cent. Virchow, who is frequently quoted, and who at first was opposed to the use of antitoxin, said, "All theoretical considerations must give way to the brute force of the figures, and I consider it the duty of every physician to use a remedy giving such clinical results."

Dr. Herman M. Biggs says further, in his more recent article, that "Baginsky, in commenting on this circumstance, says, 'It is all the more remarkable, as the ratio of mortality of those treated with the serum, before and after the period of interruption, varied within very small limits. If one will permit figures to speak at all, there has scarcely been made on human beings a more demonstrative test of the curative power of a therapeutic agent. It was an experiment forced upon us, but it proved to us how terrible was the form of disease which we were treating, and how numerous would have been the victims without the use of the healing serum.'"

Prof. Virchow again reiterated his opinion in a report which was read on the antitoxin treatment of diphtheria in the same hospital, on

December 25, 1895, when he said, that from April to November of that year 303 cases out of 335 treated had recovered, the mortality, which had formerly been 43 per cent, having decreased to 9.5 per cent.

Vucetig reports two groups of cases of 30 each, one treated with antitoxin and the other with Loeffler's solution; the antitoxin cases gave a mortality of 6.6 per cent, the others a mortality of 20 per cent.

According to the official records of the Austrian Health Department there were treated during the month of February (1896) in all Austria 1,128 cases with antitoxin, with a mortality of 13.2 per cent, whereas 1,849 cases, which were treated without antitoxin at the same time, gave a mortality of 38 per cent.

Rauchfuss reports 34 cases treated in hospital with a mortality of 21 per cent, and 30 control cases treated at the same time without antitoxin with a mortality of 52 per cent.

Von Engel in Bohemia reports 39 cases treated with antitoxin with a mortality of 25.5 per cent, and 62 cases treated at the same time without antitoxin with a mortality of 50 per cent. The antitoxin cases in these reports are said to have been unusually severe, and therefore taken as a test of the new remedy.

Heubner reports 299 cases treated with antitoxin in the Hospital Charite in Berlin with a mortality of 16.7 per cent, and 249 cases treated in the Bethany Hospital at the same time under the same conditions of age, season, etc., without antitoxin with a mortality of 43 per cent.

Blumenfeld reports 229 cases treated in private practice with antitoxin with a mortality of 8.7 per cent, and 48 cases not treated with antitoxin, because they were considered to be *too mild*; the mortality among the "mild cases" was 23.6 per cent as against 8.7 per cent among the apparently severer cases treated with antitoxin.

Many examples of the same kind might be cited from the published reports, fuller details of which will be found in the Bulletin of the Health Department (of New York), but from these it may be seen that the antitoxin treatment has stood the test of comparison with other approved methods of treatment whenever the contrast has been decidedly drawn.

The date of the administration of the antitoxin is of the greatest importance; this is really the obstacle that is the most difficult to overcome in this treatment of diphtheria. All who use it know the several reasons for it, which are not necessary to give here; the cost is but

little, and any doctor with a clean hypodermic syringe should be able to use the remedy. So the objections which have heretofore been advanced against the use of diphtheria antitoxin are being, as I stated before, rapidly dissipated.

The amount of membrane present does not indicate the amount of sepsis to be expected. I hear gentlemen reporting cases in which there was membrane covering an immense space and yet the child got well. So long as this does not act in a mechanical way to obstruct respiration it is not necessarily of great prognostic importance, as I have frequently seen such cases get well, while others died promptly with an exceedingly small amount of membrane. Its location and the activity of the absorbents, with the power of resistance of the patient, have more to do with the result. Other toxines, the result of other bacilli than that of Loeffler, are the cause of the bad results in many cases of diphtheria, whether antitoxin is used or not. So, when antitoxin fails, it is not so much the failure of the remedy as it is that of the ignorance or carelessness of the attending physician in not making the injection before other toxines are produced. We all see such cases, not only of our brother doctor but of our own, and in making these statements I include myself with the derelict. Many of these cases, in small children especially, have membrane in undiscoverable localities. In such cases the heart and general condition of our patient can be our only guide.

In a certain class of cases, I refer to those in which croup is a prominent element, even with no membrane in sight, with our present knowledge of its pathology, there should be no hesitancy in using the serum, and I believe one who does not use it is guilty of great negligence. We can have membrane on the cords which might be difficult to make out although the patient will permit the examination; and it must be remembered that membrane in this location, if it does not produce mechanical obstruction, may give little or no constitutional disturbance, as its products are not absorbed on account of the presence of a normal basement membrane in the mucous lining. To the serum in these cases calomel by fumigation can profitably be added. These cases in which intubation and tracheotomy had to be performed formerly, and those in which the conjunctivæ are involved, cases in which before antitoxin was used a majority of the eyes were lost, demonstrate to us the wonderful and beneficent effect of antitoxin in diphtheria.

In one hospital in New York the number of cases of broncho-pneumonia occurring after the use of antitoxin was urged against the use of the remedy. As soon as the rooms were kept at a temperature of 70° there were no more cases of broncho-pneumonia which had not developed before admission. The serum does not affect the blood unfavorably; the eruptions and joint involvements it occasionally produces amount to nothing: it has been demonstrated beyond doubt that its use does not increase the danger of any kidney involvement nor after-paralysis.

In all the cases in which I have used antitoxin I have never seen an eruption or a joint involvement; have never had but one to die of kidney complication; have seen but little paralysis; have seen the membrane disappear in half the usual time; have usually seen the temperature fall promptly, and the child's appetite improve very much. The cheerfulness of the patient improves wonderfully, all this with antitoxin alone, or with little or no other treatment, either local or general. This is not in all cases. If the child receives the injection late, cell tissue destroyed can not be restored. Bearing on this point is a report on a recent epidemic in Chicago. Of sixty-one children injected the first day of the disease, all got well; of one hundred and eighty-seven the second day, three died; of three hundred and seventy-two the third day, ten died; of one hundred and nine the fourth day, seventeen died. From this the importance of an early injection can be readily seen. A fair criticism of any remedy can result in nothing but good. Professor Soltman gives us the following quotation from a German poet:

"The best critics in the world are they
Who, along with that which they gainsay,
Suggest another and a better way."

These three lines answer, I think, all criticisms that have been made on the serum treatment of diphtheria. It is not a cure-all. The dose and some few other points of importance, in my opinion, have not yet been definitely settled. Even accepting the statistics given as "double edged," yet, as Soltman says, "Suggest another, and a better way." I believe the serum treatment of diphtheria is the best that has yet been offered; that in the full sense of the word it is not a specific; yet, if used in the first or second days of the disease, in the proper dose (which has not yet been definitely settled), it is as much a specific as quinine in malaria, or potassium iodide and mercury in syphilis.

LOUISVILLE.

PAROXYSMAL TACHYCARDIA.

BY HALPIN O'REILLY, M. D.

Laine divides tachycardia into three classes: (1) Those cases due to paralysis of the pneumogastric, of central origin when produced by the presence of a clot or tumor in the brain, and peripheral when due to the presence of some mediastinal growth. (2) Those cases of reflex origin induced by the irritation of a sensory nerve, especially when the source of irritation lies within the pelvic or abdominal cavity; for example, those caused by the presence of renal or biliary calculi, ovarian or uterine disease, a floating kidney, and rectal or prostatic inflammation. (3) Those in whom no organic changes or a probable source of irritation can be detected. To this class the term "essential paroxysmal tachycardia has been applied." This statement is made by Greene and Whittier in the section on diseases of the heart and blood-vessels in Sajous' *Annual of the Universal Medical Sciences*, 1894.

One's more frequent experience is with the reflex and essential types of this disorder. A pulse shrunken and compressible and beating two hundred times to the minute, whether referred etiologically to irritation of a sensory nerve, or resolved into the category of pure cardiac neuroses, is always a matter of moment and concern.

The subjects of this peculiar pathological condition sometimes die. Four such fatal terminations are recorded by Bouveret. At all events the sufferers are much alarmed and eagerly solicit help. Fortunately, there is a host of palliative remedies. Valerian, the bromides, the anodynes, the narcotics, and the anesthetics have established reputations. An ice bag over the heart is often surprisingly efficacious.

In the International System of Electro-Therapeutics, Davis writes that "there are cases in which nervous palpitation recurs frequently without apparent cause. In these cases and in the purely hysterical there is much of idiosyncrasy; and relief can often be afforded by devices peculiar to individual cases; for instance, swallowing bits of ice may stop a paroxysm in one person; hot drinks, holding the breath, reclining upon the back or pressure upon the abdomen in others." Stimulants, carminatives, emetics, or cathartics are to be employed for faintness, colic, indigestion, or constipation. The stomach tube may find occasion to display its usefulness. Dubois, of Berne, has found compression of the vagus to afford relief like magic. The pulse rate

was reduced, within ten seconds, from 140 to 96, and the attack was terminated.

This is the method of procedure: The carotid artery is sought by the thumb or the first and second fingers, and is compressed from before backward against the vertebræ, care being taken that the artery does not slip out to one side from beneath the finger. He says the method is attended by a degree of risk and should be cautiously attempted at first.

Recently, in a very interesting case, I have observed the therapeutic effects of galvanic electricity. This current has been warmly commended by the most eminent authorities, which would be naturally expected when one recalls its demonstrated influence upon the inhibitory cardiac nerves. A subgraduate in medicine who is not continuously under my care, presents himself occasionally during a spell of reflex paroxysmal tachycardia. Headache with slight vertigo and a feeling of vague apprehension constitute the premonitions which determine his coming.

Arrived at my office, he requests an immediate audience and presses forward precipitately, his voice, gestures, and countenance denoting a state of anxious agitation. He is tall, raw-boned, and decidedly anemic. He exclaims, "My heart! Doctor!" as soon as I see him, and then I know the rest. It is plain that in temperament, habit, and expression he is hypersensitive, hyperstudious, and hyperbolical. He has also an imagination with figments. He recounts great feats of brain strain.

"When a night was passed in some awful task,
And a new sun rising above the nation
Found him still there with his cerebration."

He confesses to being a good liver and afflicted with an inordinate epicureanism in the matter of fine wines and exotic table delicacies. Interrogations discover the kidneys, bowels, and other emunctories to be functionally normal. An almost inappreciable derangement of the stomach occurs after special dietetic imprudence. The action of the heart is somewhat accelerated, but the heart muscle is apparently strong during the intervals between the attacks of excessively rapid beating. His paroxysm is attended by epistaxis, then pallor, roaring in the ears, cold extremities, oppressed breathing, a sense of syncope, palpitation of the heart, and a pulse rate of over one hundred and fifty to the minute. It may be protracted through one, two, or more hours, and



FIG. 1.



FIG. 2.



FIG. 3.

may recur after three or four days. Evidently there is both vagus and sympathetic involvement. He has now been annoyed in this way for over six months. Many remedies have been unavailingly tried. Lately, some physician had placed him upon the digitalis, strophanthus, belladonna, and nitro-glycerine tablets of Da Costa. These promised to act more beneficially.

A cold water bag over the heart, with elixir of valerianate of ammonia or some other simple nervine, had formerly served him well during the acuteness of his suffering, but after awhile these had been discarded in favor of morphia and atropia hypodermatically.

The nausea and constipation that followed no less than the dread of an opium habit made this practice exceedingly undesirable. Accordingly at his first appearance for consultation I resorted to the mild descending galvanic current. The amperage from four cells only of a Waite and Bartlett cabinet was exhibited, the anode being placed a little below the middle of the external border of the sternocleidomastoideus muscle, and the cathode applied over the precordial region. The result was prompt and gratifying. Almost instantly the heart recovered its strength and tone, the pulse became slow and full, color reappeared in the face, the dyspnea ceased, and the extremities regained their customary warmth. The sufferer was delighted and grateful. Nothing before had ever operated so quickly and successfully.

LOUISVILLE.

A CASE OF PEMPHIGUS VULGARIS.

BY VERNON ROBINS, M. D., AND I. N. BLOOM, A. B., M. D.

Clinical Professor of Genito-Urinary Diseases, University of Louisville; Dermatologist Louisville City Hospital, Masonic Home, etc.

Bertha W., white, eight years of age, type blonde; under observation several weeks before illness and noticed to be poorly nourished and irritable in disposition. Family history, both parents dead, causes unknown. Duration of the disease, from December 5th to December 28th, not including a relapse, occurring February 2d, after which no new lesions appeared, the constitutional treatment being again instituted. The invasion of the disease was marked by a chill. The temperature was at no time normal until one week after the cessation of formation of new blebs, except when artificially made so by baths given when the fever was high, 103.5° F. The greatest continued high tem-

perature occurred at the end of the first week, and lasted for a period of six days, requiring a bath daily. At this time the blebs were largest and most numerous.

When many new blebs appeared, as occurred at different times, there was an elevation of temperature, but it always declined when no new ones were fully formed. The blebs varied in size from a pea to a goose egg. The largest bleb noticed was made up of several large ones joined together; it measured 3 x 3 inches and held about three ounces of fluid. This immense lesion is shown in Fig. 2, on the lower and outer surface of the left leg.

These blebs, with few exceptions, were fully distended by their straw-colored fluid contents and were observed to come on skin that appeared normal to the eye. At other times, however, their advent was announced by a flat pink-colored elevation, like an urticarial lesion, on which later appeared a bleb. Toward the end, in the latter part of the disease, appeared pin-head sized vesicles arranged in the form of rings, or segments of rings, confined principally to the front and sides of the chest.

At the onset of the disease the blebs appeared first on the belly wall, especially aggregated around the navel, but very soon after they were seen on the legs, particularly the lower parts. The disease showed itself most marked on the front of the trunk, especially the belly wall, external genitals, legs, thighs, wrists, and the dorsal surfaces of hands and feet. The upper arms and upper portion of the forearms were comparatively free. Scattered blebs were noticed on the soles of the feet, palms of the hands, scalp, face, back, and buttocks. One bleb appeared in the mouth on the hard palate. On cutting off the tops of the blister the fluid escaped, leaving a base that generally did not bleed.

A peculiarity of the base of those blebs formed on the belly wall was the well-marked elevation, that of the entire area outlined by the former bleb and which flattened only very gradually. Later in the course of the disease there was noticed a rosy erythema that spread beyond the blebs, and often indicated their extension. This erythema gradually changed in color to a brown that persisted long after the disappearance of the blebs.

To-day, February 17th, the location of the old blisters is clearly shown by a lack of color corresponding to the base, while at the circumference there is increased deposition of pigment.

The symptoms were few. Left to herself she was rather indifferent to her condition, but almost always was greatly agitated when the time came for renewing the dressings and for bathing. She would then show her nervousness principally by muscular tremor. Appetite for the liquid food given her was uniformly good; bowels were, with few exceptions, regular, and the urine normal. At night she generally slept well.

Treatment. Three drops of Fowler's solution three times daily was given and gradually increased to seven; when, after marked improvement, it was dropped to three, and finally altogether when blebs had no longer formed for some time. On February 2d a half a dozen blebs broke out on the lower legs, accompanied by a fever of 99° F., which in three days reached 100.5° F., but became normal within a week, and has since remained so. No more blebs have developed since then. She is still taking six drops of Fowler's solution three times daily.

Locally the blisters were opened by cutting away the raised epidermis, and covering the affected parts with gauze liberally spread with five-per-cent boric acid vaseline, over which was placed absorbent cotton, and the whole secured by a bandage. These dressings were renewed daily.

When the temperature was high the patient was put in a bath of warm water gradually made tepid and kept there for fifteen minutes, which always served to reduce the temperature from 1.5° to 2.5°. The blebs became smaller and fewer in number as the end of the course of the disease approached.

We are greatly indebted to Dr. H. E. Tuley and Dr. J. T. Dunn for the photographs of this case. Dr. Tuley has our thanks also for excellent notes made during the course of the disease.

LOUISVILLE.

PRECAUTIONS AGAINST PLAGUE.—Health Officer Doty has made application to the legislature for a special appropriation of \$5,000 to carry out precautions against the entrance of the plague into this country through the port of New York. In the meanwhile Dr. Joseph N. Senner, Emigration Commissioner, has accepted from the United States Government the disinfecting plant erected at Sandy Hook at the time of the cholera outbreak in 1892, at a cost of \$75,000, and is now making arrangements for the transfer of the apparatus to Ellis Island.—*Boston Medical and Surgical Journal.*

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Friday, January 8, 1897, Dr. S. G. Dabney, President, in the chair.

Exhibition of Pathological Specimens. Dr. Thomas S. Bullock: This specimen is of no special interest. It is a fibroma of the uterus removed two weeks ago last Thursday by hysterectomy with the assistance of Drs. Anderson and Palmer. On the fourth day after removal of the tumor the woman developed pneumonia, which I attribute to the exhibition of ether. At that time the wound had completely healed. I want to call attention to a fact that is particularly important for the surgeon, that, even in persons where there is no history of weak lungs, prolonged administration of ether produces lesions of the lungs. I am thoroughly convinced, if it were possible to compare the statistics of chloroform and ether, we should find that while ether is safer than chloroform, as far as recovery from the immediate effects of anesthesia is concerned, the remote results of ether would compare very unfavorably with chloroform. At the time of operation this patient was bleeding, and had been for about one month.

I used in the treatment of the pneumonia oxygen generated from peroxide of hydrogen by the new generator of the Oakland Chemical Company.

Dr. William Bailey: I do not wish to speak of the surgical aspect of the case. Here is a case of pneumonia developing four days after the administration of ether, which does not conform to the history of catarrhal pneumonia, but is limited to a lobe. There is no history of a preceding bronchitis. I should think this is a case of lobar pneumonia, simply a coincidence, and not due to the administration of ether.

Dr. Turner Anderson: The ether question is one in which I feel very great interest. There are very few surgeons who at the present time would undertake an operation, such as hysterectomy under chloroform. I am afraid of chloroform, and I never use it unless some special contra-indication exists to ether. I believe that many deaths from anesthesia are accounted for not by the manner of administration, but on account of a special idiosyncrasy to anesthetics. We know

there are people who can not take quinine. Anesthetics do suspend the action of involuntary muscle fiber exceptionally, and we know from obstetrical experience that this is more marked in some cases than in others; at times we have to suspend the anesthetic on account of the cessation of uterine action induced by it. I have never seen a case of pneumonia following the administration of ether, where I had any reason to believe that it was due to the anesthetic. I should dislike very much to see the medical profession of Louisville go back to chloroform.

Dr. J. G. Cecil: I was also inclined to doubt the etiological relation of ether in the case of pneumonia reported by Dr. Bullock, since he describes it as croupous pneumonia. If he had described it as catarrhal pneumonia I should have been of his opinion. However, the anesthetic might act in the same way as does cold in the development of pneumonia. We know that the pneumococcus is found in the mouths of healthy persons, and if this were present the irritation excited by inhalation of ether might have been sufficient to set up pneumonia. I do not see how it could have been produced in any other way by ether.

Dr. J. M. Williams: I should like to state that in New York last year I saw a number of cases of pneumonia following etherization, and I heard a number of surgeons say that it frequently followed, and was attributable to the irritant action of the cold ether upon the bronchial mucous membrane. The pneumonia in the three or four cases which I saw was lobular.

Dr. L. S. McMurtry: I have been using ether almost exclusively for a number of years. Lately my anesthetist has gotten into the habit of using a mixture of chloroform and ether, which I think is better. We have been using chloroform during the preliminary stage of anesthesia, and then putting on ether and continuing in that way. Previous to the past year I have been using ether exclusively in long and in comparatively short operations. I have seen it used a great deal both in this country and Europe by abdominal surgeons, and have never seen a case of pneumonia follow. There are many subsidiary causes of pneumonia following operations which are not taken into consideration. Take, for instance, the operation of gastrostomy; it is quite common for pneumonia to follow this operation, even if chloroform is the anesthetic used, and many surgeons put these patients in a semi-upright position as soon as possible after the operation. It is very important to give the anesthetic in a warm room. I think that after a long opera-

tion the custom which prevails in many hospitals of putting the patient on a wheel carriage and carrying him through a long hall, often cold, and into a room which also is often not sufficiently warm, has much to do with the production of what some surgeons call ether pneumonia.

Dr. Bullock: I am obliged to the gentlemen for the free discussion of this case. Whether the pneumonia was due to the cold fumes of ether or the aspiration of particles of mucus I can not say. I certainly have seen cases of pneumonia that were said to have been produced by ether, and I have no doubt they were. As I stated before, while as regards the immediate danger ether is a safer anesthetic than chloroform, I believe the statistics of ether anesthesia, if the after-history could be obtained, would show chloroform to be the safer anesthetic. It is certainly far more pleasant to administer.

The essay of the evening was read by William Cheatham, M. D.; subject, "The Present Status of the Serum Treatment of Diphtheria." [See page 121.]

DISCUSSION.

Dr. J. M. Ray: I have had some experience with antitoxin, but the majority of the cases of diphtheria I see are as late as the fourth or fifth day, and after the larynx has become involved. In cases where I thought antitoxin would be of any service I have used it. But when the patient was moribund I have not used it. I have had some experience with antitoxin as an immunizing agent, and it has worked favorably. I saw in the country, a short time ago, a child that had been sick six days. There was a membrane in the larynx. I did not tube, and did not use antitoxin, and the child got well. I suggested, as there were three other children in the family, that we should inject these children, but to this the family did not agree. Ten days later I was called back to see another of these children with the same condition; it had existed four or five days. I tubed this child—it died. I again urged that the two remaining children be immunized, and the family physician coming to my view, they were injected. I had a letter from the father later, in which he states that he thinks the injection saved his two younger children. I think that when we have seen a case of diphtheria early it is our duty to use antitoxin. I have not seen any bad results in cases where antitoxin was used that have not been seen without it.

Yet in our enthusiasm for antitoxin I think we should not neglect

other agents; and again we should not expect to cure every case. I am inclined to be conservative in its use, and to not use it late in the disease. I can not see what can be gained by its use when profound sepsis is present.

Dr. F. C. Wilson : I do not allow antitoxin to take the place of other treatment. My experience is that it does shorten the course of the disease. I had a very marked instance of this in a child I treated two years ago under the old plan; the duration of the disease was eleven or twelve days. I was called last fall to see the same child in another attack of diphtheria. I treated him at once with antitoxin; recovery was rapid, with prompt disappearance of the membrane. I have had several cases of albuminuria, but none which could be attributed to the use of antitoxin. I am firmly convinced of its value as a curative agent, and also of its value for immunization.

Dr. J. A. Larrabee : I am very glad to be able to commend the paper, because in the use of antitoxin I was prejudiced somewhat against it for a time. That prejudice arose from the observation of a case in which albuminuria and, later, entire suppression followed in two days (Behring's serum being used). I thought it was too early for the appearance in such quantity of albumin and such great anasarca. On Monday the patient was injected; on Wednesday the membrane was free; on Sunday the patient died. While this could possibly be a part of the diphtheria, it led me to doubt somewhat the value of antitoxin. Since then my experience has been extended, and I have changed my ideas in regard to it, and indorse most fully the position of Dr. Cheatham. I believe, also, it is a remedy which it would be criminal not to use. When we first began the use of antitoxin it was nearly all imported, and the fact that the German Government has recalled serum shows very plainly that they themselves believe it ought to be fresh. I have no doubt that the serum we used in the case I have reported was at least six months old. I believe that the better experience we are having now with antitoxin is due to the fact that we have a fresh, concentrated American serum. I indorse again most fully and corroborate the statements of the essayist.

Dr. Cecil : I have nothing to say except in commendation of Dr. Cheatham's paper. He expresses my views. I believe it to be an agent of priceless value; and that the statistics which he quotes should convince any one. The point of greatest importance made in the paper was that the failure to get results was very often due to the

length of time that had elapsed between the treatment and the beginning of the attack. Statistics prove that if antitoxin is used on the first day hardly any of the cases die.

Dr. Bullock: My experience with antitoxin has been in conjunction with specialists. One of the most remarkable cases that I know of was one in which antitoxin was used very late. One member of the family had already died of diphtheria, and I regarded this patient as past hope. Dr. Ray gave one injection; the next morning the child was very much improved, and recovery speedily took place.

Dr. Bailey: I am fully committed to this idea, and want to commend the paper of Dr. Cheatham fully. We have a right to demand an antitoxin which is pure, genuine, and fresh. It should be used promptly, because it is the antitoxin of diphtheria, and not of other affections. It has no power over toxins other than those of the Klebs-Loeffler bacillus. I believe also in the power to immunize which antitoxin has. I believe that the statistics which the essayist quotes are honest, and that they will support his position, and that we have in antitoxin a specific if used in time.

I wish to say that I most heartily concur with the essayist in regard to the wonderful efficacy of the antitoxin treatment of diphtheria. Unfortunately I have not a record of all my cases of diphtheria in the past three months. I have kept a record of the cases of laryngeal diphtheria coming under my care in this time. I have seen sixteen cases of this form of the disease. Eleven of these were treated with antitoxin; ten also had to be intubated. Of the eleven one died and ten recovered. Their ages were as follows: one eight, one six, two five, one four, two three, three two years, and one eighteen months. The antitoxin was administered in one case on the first day, three on the second day, five on the third day, one on the fourth day, and one on the fifth day. The tube was removed in one on the third day, one on the fourth, five on the fifth day, one on the sixth, and one on the eighth day after intubation. Three tubes had to be re-inserted, one in one hour, one in two hours, and one in thirty-six hours after removal. The second removal was done in one in ten days, one in eleven days, and one in fourteen days after the first introduction. The one case not intubated was a child eighteen months old, it received the antitoxin within twenty-four hours after the attack. The dyspnea was relieved in twelve days after the injection. The fatal case was in a child two years of age. It received antitoxin on the second day, and was intu-

bated at the same time the antitoxin was given. Death from broncho-pneumonia followed thirty-six hours after the injection. I afterward learned that the antitoxin used in this case was from an old supply. Of the five cases treated without antitoxin all required intubation, and all died. Four died from broncho-pneumonia, and one from sepsis. One died in twenty-four hours, two in forty-eight hours, and one in twenty days after intubation.

I do not think the cases treated without antitoxin were more unfavorable or more severe than those treated with it. The difference in the results is, I believe, due solely to the administration of antitoxin.

The only reason that it was not given in all cases was the inability of the families to buy the antitoxin. Certainly the City or State Board of Health should make some arrangement for furnishing this remedy to the poor. In laryngeal cases, if the antitoxin is used very early, the number of cases requiring intubation will be lessened.

In the cases reported the intubation was usually done at the same visit as that on which the antitoxin was given, as they were all in parts of the city remote from my office. Had they been within easy reach, or in a hospital, where the progress of the dyspnea could have been watched by an intelligent nurse, no doubt the percentage of intubation would have been much less. However, I consider that a skillfully performed intubation adds little or nothing to the gravity of the disease, and in doubtful cases early intubation is much safer than procrastination.

While I fully appreciate the importance of the early administration of antitoxin, I do not think it right to deny it a fair trial in those cases we see late in the disease. I have seen some excellent results follow its use as late as the fifth or sixth day.

Dr. S. G. Dabney: I listened with interest to the paper by Dr. Cheatham. Like most of us, I have been much interested in the antitoxin question for the last few years. I have used it in all cases of diphtheria, and in a few which the subsequent course proved not to be diphtheria. I am far from agreeing with Dr. Cheatham, however, that ninety-five per cent of membranous inflammations of the throat are true diphtheria. Statistics based on this diagnosis must of necessity show brilliant results.

The fact that antitoxin has been used in many cases which subsequently proved to be not diphtheria, rather impairs the statistical evidence in its favor. Notwithstanding this, however, the testimony is

so overwhelming that the conclusion that antitoxin is by far the most valuable treatment for diphtheria we have at present is irresistible.

One question in regard to its use needs further and more definite information, and that is the question of dosage. Probably many of the failures are to be attributed to a serum lacking in antitoxin units. The labels on the bottles can not be trusted. This has been proven by the investigation lately undertaken by the Medical News. This journal collected specimens of antitoxin prepared by a large number of the most reliable houses in the world, and sent them to a distinguished bacteriologist in Philadelphia for examination. He reported that in a very large proportion of cases the number of antitoxin units was widely different from what it was represented. Generally there was a deficiency. In one case, where the reported strength was two hundred, the actual strength was twenty units. In a few cases the specimens were stronger than they were alleged to be. The representative of Parke, Davis & Co. in this city recently informed me that they purposely made their antitoxin somewhat stronger than represented, believing there might be some deterioration from keeping.

According to the report of the American Pediatric Society, we have not been injecting a sufficient number of antitoxin units. In children over three years old, unless the case be very mild, the quantity should not be less than 1,500 or 2,000 units.

The most marked improvement has been in the preparation of more concentrated solutions. This is of special importance in view of the generally accepted opinion that, if any injurious effects were ever exercised upon the kidney, they were to be attributed to the large volume of serum which was first used. Both the amount and the situation of the membrane are, I think, of great value in diagnosis and prognosis. Lenox Brown declares that in diphtheria the membrane will almost invariably have extended beyond the tonsils at the end of twenty-four hours, and this opinion is indorsed by Casselberry, of Chicago. I can not but think that it is extreme. Extension of the membrane to the pillars of the fauces, soft palate, and uvula is of more importance in the prognosis than diagnosis. It is the cases in which this extension occurs and in which the membrane is thick, white, tough, and adherent that the fatal result is most often seen. In the New York Infant Asylum Holt found that, out of one hundred and twenty-nine cases of diphtheria, in twenty-seven the membrane remained confined to the tonsils.

I am surprised that in the course of this discussion so little has been said of the value of antitoxin in laryngeal diphtheria. Certainly we find here the most conclusive evidence in its favor. This has been recognized by the Pediatric Society, whose circulars now request reports only in regard to antitoxin in laryngeal diphtheria from the first of April, 1896, to the first of April, 1897.

Three things seem certain: first, a large number of cases in which intubation was formerly necessary now recover without it; second, that the average time for the retention of the tube has been greatly diminished; and third, that the mortality after intubation has been very greatly reduced. If this experience had been confined to one operator, or even to one city, it would be less significant, but it has been almost the same the world over. For myself, I may say that in my last nine or ten cases of intubation I have had only one death, and I know that my colleagues here have had similar results, whereas the former mortality was about fifty per cent. Antitoxin should be used in laryngeal cases, however late they are seen. It prevents the extension of the membrane, which has been the cause of the greater number of the deaths. This whole subject was most thoroughly elaborated in the paper written by Welch, of Johns Hopkins, more than a year ago. Even then it seemed clearly demonstrated that the antitoxin would almost, if not quite, be a specific for diphtheria, if used in the very beginning of the attack. Unfortunately, however, in a certain proportion of cases there is associated with the diphtheria bacillus organisms which produce septic infection. They may be very active even from the onset of the attack, and over them the antitoxin can have no power.

It is of great interest to note that Welch attributes to these germs the diseased kidney, which too often follows in the wake of diphtheria, whether antitoxin has been used or not. He quotes a distinguished German pathologist as having found the streptococcus in the kidney in these cases of nephritis.

In conclusion I would refer to three deaths which have recently occurred in my own experience from acute disease of the kidney complicating diphtheria. In all three antitoxin was used. In one of them, however, urinalysis had revealed the diseased kidney before its administration, and in one of the other two the clinical symptoms made it almost certain that there was kidney disease at the time of the injection. The brief history of these cases is as follows:

The first was a boy five years old. I saw him on Sunday morning. He had been taken sick on the Wednesday previous with fever, vomiting, and slight sore throat. There was a homeopathic practitioner in attendance, and, as the child had been subject to similar attacks from gastric disturbance, he not unnaturally omitted to make a minute examination of the throat. The diagnosis of diphtheria was accordingly not made till about forty-eight hours later, and another forty-eight hours were spent before the antitoxin was injected. Accordingly the time had gone by when much could be expected from it. The case was an extreme one. There was abundant membrane over both tonsils, palate, and uvula. Glands in neck greatly swollen, color bad, and heart's action very weak. 1,000 units of antitoxin were immediately injected. Twelve hours later, as no improvement had been made, and as the child was decidedly hoarse, the dose was repeated. Strychnia was administered internally, but by the following day the nausea and vomiting were so intense that nourishment by the stomach had to be entirely discarded. The child was supported by liquid peptonoids administered by enema. In the course of the following week nausea diminished, local symptoms all improved, and although albumin and tube casts were still present, symptoms seemed favorable to recovery. As the local lesion had now disappeared, I informed the family that it would be better for me to surrender the case to their family practitioner. After mature deliberation they decided to turn the case again into the hands of their former physician. I saw the little patient no more, as I was called to Virginia a few days later. On my return I heard that the little boy had died very suddenly the night before. It is of interest to note there was one other case certainly, and a third one probably diphtheria, in the same family. These two cases received antitoxin within twenty-four hours of their onset, and both recovered within a week or ten days.

The second case was in a girl twelve years old, and was an instance of decided mixed infection. The patient was taken sick on Friday night, and I saw her on Sunday midday. The septic character seemed to have predominated from the beginning, and the development of membrane was slow. At the time of my visit there was tremendous swelling of the lymphatics of the neck. An almost solid collar extended from the lower jaw to the cavicle on both sides. Within the throat the swelling was equally great. The tonsils, enormously infiltrated, met and pressed against each other in the medial line. The uvula was.

pushed back behind them, and only its lower tip could be seen, but this showed marked edema and elongation. A membrane covered the tonsils and was beginning to extend on the anterior pillars. This established the diagnosis of diphtheria. The child was decidedly deaf, apparently from pressure on the eustachian tubes, as the deafness subsided with the swelling. Her breathing was noisy and difficult, so much so that the physician in attendance had suspected edema of the glottis, and on this account I had been summoned in consultation. A urinalysis was immediately made, and revealed the presence of albumin and tube casts, thus proving the nephritis before antitoxin was used. 1,000 units was immediately injected. Iced applications were made externally, and ice held in the mouth. Strychnia and iron and whisky were given internally. The swelling rapidly subsided, breathing and hearing became easy, and all the local symptoms were favorable, except for an ominous and rather persistent nose-bleed. On the following Wednesday uremic symptoms became more decided. There was great restlessness, nausea, and a cold skin. The child died after thirty-six hours suppression of urine on the following Saturday afternoon.

In case third, the diphtheria was of less severe type, and the symptoms pointed to recovery. From the beginning of the attack the patient complained of nausea, and frequent abdominal pains. Examination of urine was not undertaken until the day after the use of antitoxin, 1,000 units. Albumin and casts were then shown. The local symptoms in this case also rapidly improved, but there was present nausea and restlessness, and the patient died after nearly forty-eight hours suppression of urine, about eight days after the beginning of the attack.

In all the cases the remedies advised by the most recent authorities in acute nephritis were administered.

The lesson to be learned from such cases, I think, is simply the great importance of recognizing the mixed infection. Antitoxin was in nowise responsible for the kidney complications, and it stands first among the discoveries in modern medicine.

J. L. HOWARD, M. D., *Secretary.*

Reviews and Bibliography.

A Treatise on Surgery. By American Authors. For Students and Practitioners of Surgery and Medicine. Edited by ROSWELL PARK, A. M., M. D., Professor of the Principles and Practice of Surgery and Clinical Surgery in the Medical Department of the University of Buffalo, etc. Volume II. Special or Regional Surgery. With four hundred and fifty-one engravings and seventeen full-page plates in colors and monochrome. 804 pp. Philadelphia and New York: Lea Brothers & Co. 1896.

A list of the names of the eminent writers contributing to this volume is perhaps the best commentary to be offered. This embraces the names of Drs. William T. Belfield, Arthur Dean Bevan, Clarence J. Blake, Edward H. Bradford, Charles Stedman Bull, D. Bryson Delavan, Frederic S. Dennis, James H. Etheridge, Duncan Eve, Arpad G. Gerster, Charles B. Kelsey, Robert W. Lovett, Rudolph Matas, Roswell Park, Charles B. Palmer, Maurice H. Richardson, and Edmond Souchon.

The first volume of this work was most cordially received by the profession, and was regarded as an apt exponent of the exalted position to which American surgery has attained. This volume is a worthy companion, completing the system.

There can be no doubt that the circumstances of surgery in America greatly favor progress. To know how far we can safely go it is necessary for some one in every direction to go too far, and the most radical can not deny that experimentation in that direction has been carried as far as could be desired. A vast amount of criminally hazardous surgery has been done, and many times repeated; but out of this more conservative men have taken lessons and drawn rules which place surgical interference in its proper place. It is such men that write the books, and such are the names that have been selected to build such monuments as the one before us.

Surgical literature is not wanting in superb works, but along with the best of them, in proportion to its pretensions, "Surgery by American Authors." will take its place.

D. T. S.

A Manual of Syphilis and Venereal Diseases. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, etc., and FRANK H. MONTGOMERY, M. D., Lecturer on Dermatology and Genito-Urinary Diseases, Rush Medical College. With forty-four illustrations in the text and eight full-page plates in colors and tints. 618 pp. Philadelphia: W. B. Saunders. 1895.

This manual has been prepared with the intent of meeting the special needs of the student and of the practitioner rather than the expert. Dr. Hyde's has become a name that carries with it authority, and he has found a worthy coadjutor in Dr. Montgomery. To one who has watched the veering of the compass in the treatment of venereal diseases, who has seen

the relicts of medieval cruelty practiced upon the unfortunate victims of venereal disease, as if the doctor were the tail-end of a Nemesis whose duty it was to pursue them to a cruel doom, it is more than pleasing to see gentleness and conservatism the characteristic of every treatise devoted to venereal diseases that finds acceptance with the profession. The doctor, schooled into cruelty by the long practice of torments, no longer amuses himself like a Spanish inquisitor at the grotesque dances of his patients while his chancroids are smoking with fuming nitric acid, and that too while he was reading in his blindly-followed authorities that only the milder forms should be thus fired, but that the extensive ones should be treated with painless dressings, as if the mild ones could not be cured with the treatment the severe ones received. Likewise with condylomata that must be cut away and then burned, while an injection for gonorrhea that did not make the patient squeal was at least supposed not to satisfy his smitten conscience. What do we find here in a work by men of high authority. Chancroids treated by antiseptic dressing, condylomata by drying powders, gonorrhea by mild injections in the latter stages, while in the initial stages the phagocytes are to be left free to fight it out with the gonococcus. We welcome this book, because it has almost no fads and its teachings have the right direction.

D. T. S.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections in Photo-Lithocromes, from Models in the Museum of the St. Louis Hospital, Paris. With explanatory wood cuts and text. By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAN, DU CARTEL, HENRI FEULARD, and L. JACQUET. Edited and annotated by J. J. PRINGLE, M. B., F. R. C. P., Assistant Physician to and in charge of the Department for Diseases of the Skin at the Middlesex Hospital, London. Parts 1, 2, 3, and 4. Price, \$3 per part. London: The Rebman Publishing Co. Philadelphia: W. B. Saunders. 1896.

This atlas of diseases of the skin and syphilitic affections is probably the most helpful in its way yet produced. If there is any place in the world where art is cultivated more than in Paris, or if there is any place where science is developed to a higher degree, there is certainly no place where so high a character of art and so profound a degree of science are combined as in the French capital. The keenness of observation, the pointed, graphic description, the clearness of style of which the French are so eminently masters, are here exhibited at the best, while the mechanical execution, drawings, and letter-press would be hard to overpraise.

A happy selection has been made from the immense stores of the museum of the St. Louis Hospital, of the illustrative examples needed for aid in instances of difficulty and doubt. Likewise in description of the plates there seems to have been kept constantly in view the bringing out into marked prominence of the characteristic points needed to aid the judgment and to effect the sharpest differentiation. Especially vivid and striking are the parts devoted to syphilis and leprosy.

To such as have had their imaginations wrought up by highly-colored panegyrics of the supposed martyrdom of Father Damien, the description

of Dr. Besnier's method of treating leprosy would be a startling revelation. When he tells us of treating the tubercles of leprosy by means of electrolysis and practical massage, one would smile at a comparison between the priest and the doctor in the matter of heroism, so indifferent is the latter to any suggestion of danger.

It is to be supposed that in these days of such rapid improvement in color-printing and other forms of illustration, it will not be far into the future until the work is improved upon; but for the best possible efforts the work before us must for many years to come form an excellent pacer.

D. T. S.

Over the Hookah: The Tales of a Talkative Doctor. By G. FRANK LYDSTON, M.D., Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons; Professor of Criminal Anthropology in the Kent College of Law, etc. 618 pp. Price, cloth, \$4.00; morocco, full gilt, \$5.00. Chicago: Fred Klein Company. 1896.

We can not fairly place this production of Dr. Lydston by the side of "The Autocrat of the Breakfast Table," but it will compare quite favorably with any other literary production coming from the hands of an American practicing physician. The way in which the author shoots folly as it flies, and impales it as it "lies," is quite refreshing. Hypocrisy, cant, and deception receive at his hands nothing in the shape of mercy. Those who best know the genial, light-hearted author will be most surprised when he casts his line into the deeper waters of serious philosophy, though in fact a subtle but somewhat disguised philosophy runs through the whole volume. It has furnished such attractive reading that its review has been delayed by friends who had got hold of it passing it from one to another as a treat. The illustrations are not only suppassingly well executed, but each one is a study, and show a latent artistic power in the author that leads one to ask why he has not developed into a high class painter instead of a dispenser of pills. The letter-press and binding are so attractive that the book would be desirable as an ornament even without its other merits.

D. T. S.

The Tonic Treatment of Syphilis. By E. L. KEVES, A. M., M. D., late Professor of Dermatology, Syphilology, and Genito-Urinary Surgery in the Bellevue Hospital Medical College; consulting Surgeon to the Bellevue Hospital. Revised edition. 76 pp. New York: D. Appleton & Company. 1896.

The design of this work is to lay down a plan for the treatment of syphilis in accordance with a discovery claimed by the author that mercury may be so used as to operate as a tonic; hence the name, "The Tonic Treatment of Syphilis." He does not, however, restrict himself to the consideration of mercury alone in this disease, but embraces in its entirety what in his large experience he regards as the best comprehensive treatment. The deviation the author makes from the common is the contention that even small doses of mercury are always tonic, and that the treatment of syphilis in the absence of urgent conditions should be continuous as regards this drug.

Whether or not the reasoning and the dictum of the author is accepted in full, every one must admit that he has set forth a clean-cut, thoughtful plan of treatment that must be eminently helpful to such as have not their minds fully made up as to the proper course to pursue. For the general practitioner, not meeting with a large number of cases, and out of the range of a large experience, this little work ought truly to be a *vade mecum*. It is so clear, definite, and explicit that all can follow, and is fraught with good.

D. T. S.

A Text-Book of Materia Medica, Therapeutics, and Pharmacology. By GEORGE FRANK BUTLER, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago, etc. 858 pp. Price, \$4.00, net. Philadelphia: W. B. Saunders. 1896.

The author has based the arrangement of this work upon the therapeutic affinities of drugs, deeming this better than setting them forth in alphabetical order. This plan certainly facilitates the study of drugs and aids in keeping them in the memory. But as many drugs have different and even diverse properties; the method is not without its drawbacks. The pharmaceutical section has received special attention and is more than usually lucid and complete. The author has very properly left out a number of drugs, even official, for the reason that they are seldom employed. He might without harm have gone farther yet in this direction. He has been even more liberal in pruning off new and imperfectly proved remedies. Valuable aid has been supplied in the way of showing the proper pronunciation of the Latin names. A thoroughly complete clinical and general index gives the finishing touch to an excellent work.

D. T. S.

A Text-Book for Training Schools for Nurses, including Physiology and Hygiene and the Principles and Practice of Nursing. By P. M. WISE, M. D., Medical Superintendent St. Lawrence State Hospital, etc. With an introduction by DR. EDWARD COWLES, Physician-in-Chief and Superintendent of the McLean Hospital, Mass. In two volumes. Volume I, 247 pp. Volume II, 327 pp. New York and London: G. P. Putnam's Sons. 1896.

The purpose of these volumes is to provide a text-book that will suffice for all the recitations in a two-years' course in training schools for nurses. It will furnish a basis for the usual curriculum, and the work has been so divided into chapters as to provide a weekly recitation for thirty weeks, the scholastic term in nurses' schools. What places it distinctly ahead of other works on nursing is that it devotes large space to the nursing of the insane, the author being one of the pioneers in this field—one who has been a large part of the reform in the nursing of the insane—a reform that is still progressing. It indeed supplies a long-felt want and is bound to meet with a most friendly reception.

D. T. S.

An Atlas of the Normal and Pathological Nervous Systems, together with a Sketch of the Anatomy, Pathology, and Therapy of the Same. By CHRISTFRIED JACOB, M. D., Practicing Physician in Hamburg. With an introduction by PROF. DR. AD. V. STRUEMPFEL. Translated and edited by JOSEPH COLLINS, M. D. 232 pp. (Wood's Medical Hand Atlases, No. 2.)

Abstracts and Selections.

THE SURGICAL TREATMENT OF SPASTIC PARALYSIS.—Spastic paralysis is that form of paralysis which is accompanied by an active tendency to tonic muscular spasm, or permanent contraction. In children this affection and its results are to be carefully distinguished from the condition found in anterior poliomyelitis and due to that affection. Spastic paralysis in children, when used to signify a particular disease or group of affections, is due to an intracranial lesion; anterior poliomyelitis is an affection of the spinal cord. Spastic paralysis may involve any or all of the limbs; it is most commonly of the hemiplegic or paraplegic type, but in children in a spastic hemiplegia the opposite lower extremity is almost invariably somewhat affected, though not to the degree of the limb on the affected side.

Spastic paralysis in children was first brought prominently to the notice of the profession by Mr. Little, and hence it has been known as Little's disease, this term being often limited more especially to the paraplegic form.

In the early days of orthopedics a few scattering operations were performed on cases of this affection, but the results experienced were not deemed satisfactory, and the generally accepted opinion of the profession was that on these patients operations were not advisable, because recontraction of the cut muscles was certain to occur and no permanent relief of the deformities could be hoped for.

Matters were in this position when Bradford first at the Boston Children's Hospital and elsewhere attempted relief of these patients by tenotomy.

He published the first account of a small series of cases in the Boston Medical and Surgical Journal in 1884. In spite, however, of this and of occasional operations performed by him, by Dr. A. T. Cabot and others, it was not until within the last five years that the exact value of the operation in these cases has been determined, and it has become in Boston the recognized treatment for certain conditions.

Operative procedure is advisable only in the more severe forms of spastic paralysis, where the deformity is considerable and disabling, and where it can not be relieved by other forms of treatment, such as massage and electricity. The latter forms of treatment should, when practicable, be used thoroughly and patiently, and their inadequacy to produce by themselves the required results fully shown before we adopt operative measures. It is surprising, to those inexperienced in the matter, how much an apparently firmly contracted muscle can often be stretched with care and patience, and how much permanent effect can be produced by massage and electricity when properly applied, and when the applications are repeated

regularly for weeks or months. We find, however, cases in which the slow method of procedure is difficult or impossible and also some in which it is unavailing. In these cases we the more readily resort to operation, as the operation is comparatively simple and not to be considered dangerous. It is to be remembered, nevertheless, that in order to obtain good results the slow forms of procedure (massage and electricity) must be continued for a considerable time after the operation.

Before performing this operation it is very important that the surgeon should understand exactly what he may hope to accomplish by it.

In a successful operation the deformity should be essentially and permanently removed; the limb several years afterward should, when at rest, be in the position of a normal limb so far as the muscles or tendons operated upon are concerned. On the other hand, the operation neither relieves the tendency to spasm due to the original affection, nor does it in any way relieve the paresis. Indeed, so far as the strength of the limb is concerned, it takes away any support that may have existed due to the contraction of the deformity thereby caused. The condition of the limb after a successful operation will therefore be that of a paretic or weakened limb of essentially normal shape. There will, moreover, exist in this limb a tendency to reflex spasm.

The correction of deformity is of more than esthetic importance. It is the first step to relief or improvement, but it is only a step. Its value as a therapeutic measure consists in that it enables other remedies (massage and electricity) to be applied to better advantage. If the opportunity is not given for the use of these, operative measures are of but partial value.

The character of the operation is simple. It consists usually in dividing, wholly or partially, some portion of the tissue lying between the extreme attachment and origin of the muscle. This may be muscular tissue, tendon, or aponeurosis. Personally, I believe, that except as an extraordinary measure, a pure myotomy should never be performed on account of the recontraction of the cicatricial tissues. Tenotomies or teno-myotomies are the only safe methods of division, counting divisions of aponeuroses or of tendons as essentially the same in this respect. After division the limb should be held for some time in a position of slight overcorrection of the deformity.

Lengthening the tendon is only another method of accomplishing the same result.

Summary. Operative procedures—tenotomy and teno-myotomy—are of much value in cerebral spastic paralysis when their aim and scope are fully understood. They correct the deformity permanently and they place the limb in a favorable condition for treatment by other means; they are not themselves curative. Muscular tissue alone should not be divided. Where possible the tendons should be cut. Where this is not possible either muscle and tendon, or muscle and aponeurosis.—*Wm. N. Bullard, M. D., in Boston Medical and Surgical Journal.*

ALLEGED PREMATURE BURIAL IN PARIS.—A very sensational article was published by a contemporary the other day on Premature Burial in Paris: "A Danger that Attends Foreigners." According to the article: "Something like a panic has been caused in Paris by the conviction forced upon the public mind, and based on the surest medical evidence that a terribly large proportion of the apparently dead, who are in due course interred, are in reality buried alive. . . . Not long ago, in one of the principal hotels in France, an English lady died, and in accordance with the wish of the hotel proprietor and what he was pleased to term the State regulations, the body was interred the following day. A week after it was exhumed, and then the shocking discovery was made that the mouth was full of blood, and that the fingers and wrists were gnawed away, an evident proof that the unhappy lady had come to life again, only to perish in a shocking manner." We regret that our contemporary has not seen fit to give "the surest medical evidence" on which is based the conviction that a terribly large proportion of individuals are in reality buried alive. Surely when such a statement is made in a widely circulated paper, on a subject calculated to spread alarm among the public, it should be accompanied by full credentials so that its reliability may be thoroughly tested. In our opinion it is unnecessary to consider seriously these vague statements unless accompanied by full and authenticated details. For instance, as far as the account of the alleged premature burial of an English lady in France is concerned, what proof is there that the injuries to the hands and mouth had not been caused by rats? The observations to which we refer are not quite consistent in the article in question. Referring to the French system of verifying the fact of death, in which the body is seen by a *médecin inspecteur*, who certifies to the cause of death, and who is followed, or should be followed, by a *médecin vérificateur*, whose business is to verify that death has really supervened, it is stated that the last mentioned official is not "as a rule competent to judge whether the indubitable signs of decease are present or not. It is now recognized that only decomposition is a sure sign of death." Further on in the article it is said that a society has been established in France for insuring persons against being buried alive, and it is stated that "for a small annual subscription a properly-qualified medical man visits the supposed dead body, applies the necessary tests, and gives a perfectly reliable certificate." But if the only reliable sign of death is decomposition (we by no means say that it is), where is the necessity for the visit of the medical officer of the insurance society, and how does he become possessed of powers denied to the *médecin vérificateur*?

IS THERE A TYPHO-MALARIAL FEVER?—The following case is reported, not because of uniqueness, but as contributing to the settlement of the much-mooted existence of typho-malarial fever:

T. H. P., male, age thirty-six, more than three weeks ago was taken sick with what looked like cholera morbus. In four days a chill came on, fol-

lowed by sweating and fever; thereafter, for four or five days, there were two and three chills at irregular intervals daily; the temperature one morning reached 106° , falling to 102° upon the application of a cold bath. Thirty grains of hydrochlorate of quinine were administered in twelve hours, and as a result chills ceased, but there remained a persistent fever, which was stationary in the morning, rising in the afternoon, and accompanied by nearly all the symptoms which justified a diagnosis of typhoid fever. He entered his fourth week of sickness to-day, but his temperature has been normal for four or five days in the morning, with exacerbation in the afternoon. Chills came on again last Friday, and with the exception of Sunday, he has had them daily at irregular intervals, and sometimes two in twenty-four hours. Dr. R. F. Williams made a blood examination and found absolutely no plasmodium, but a marked leucocytosis, which argues a favorable result. Drs. Gordon and Deaton saw the case in consultation, and agreed that the trouble is pure typhoid.

Dr. William S. Gordon said, regarding this case, that it was undoubtedly typhoid. If it had been typho-malaria, when the chills were stopped the fever should have ceased, and the blood examination further verified the diagnosis. He reported the case of a lady confined two weeks ago. He had ceased his attention, when on the twelfth day she was seized by a violent chill at 4:30 P. M., and again at 11 P. M. Friday last there was another at 11 A. M. Quartan fever being suspected, he gave quinine, but there ensued a chill at 11 P. M., followed by high fever and sweating. There was no trouble with the breast that morning; the lochia were free from odor, and every thing relating to the uterus was normal. At night the breast was affected and lead-water was advised. The next morning mammitis had come on—no suppuration. The breast trouble did not ensue until the fourth day. It was relieved. Yesterday the patient was entirely free from fever. She was thoroughly cinchonized. Remembering the influence on the mind of the time of attacks, he endeavored to take her's from under its influence by mental diversion, anecdotes, etc.; but at 4:30 P. M. the chill came. If she had not been under the influence of quinine, she would in all probability have had another last night. The case, a double quotidian of the quartan type, is one the doctor has never seen before.

As to the cause: The house is surrounded by flowers, grown over with vines; has, necessarily, decaying vegetation in the garden; flowers in the rooms. These, with moisture and heat, furnish all the etiology desired. *Virginia Medical Semi-Monthly.*

RESULTS OF TREATMENT OF RABIES AT THE PASTEUR INSTITUTE.—The last number of the *Annales de l'Institut Pasteur* contains the usual quarterly summary of the results of antirabic treatment during the months April, May, and June, 1896. The total number of persons under treatment was 316, while the number of deaths were six. Of these six cases four were bitten by dogs, of which only two were experimentally proved to be

rabid; in the case of the other four, rabies were declared to exist from the result of *post-mortem* examination. Among the fatal cases were two sent over from England—Thomas Lambert, of Stockport, and Thomas Openshaw, of Bury. Thomas Lambert, aged nineteen, was bitten on March 3d, and was at the Institute from March 8th to 26th; he died on April 21st. He was badly bitten in the arm in four places, and two guinea-pigs which had been inoculated with the virus of the dog which had bitten him died of hydrophobia. Thomas Openshaw was badly bitten on both hands in November, 1895, and had been under treatment from November 22d to December 3d. He died on January 16th, but in this case there was no experimental evidence of rabies in the dog which had bitten him. It was, however, certified as rabid from a *post-mortem* examination by a veterinary surgeon. Of the four other deaths, one was in a patient bitten by an animal experimentally proved to be rabid, and three by animals so certified by veterinary surgeons. Compared with the previous quarter—January, February, and March—during which nearly the same number of cases were treated, 320 cases with one death, the increase in mortality seems alarming, but it must be remembered that the deaths occurring in one quarter are often those of cases treated during the previous quarter. A correct estimate of the progress of the treatment can fairly be formed only from considerations of a far larger series of cases extending over a large number of years. The mortality for 1896, it is true, will come out higher than that of previous years, but in all forms of treatment which, like the Pasteur treatment, are admittedly to some extent imperfect, times of bad luck must come, and a continuance of the relatively high mortality of the last quarter need not be anticipated. When it is remembered that during nine years the mortality has steadily diminished under treatment from ninety-four per cent to thirteen per cent some idea is obtained of the splendid results of the Pasteur treatment.—*British Medical Journal*.

NITROGLYCERINE IN ANGINA PECTORIS.—Schott, of Nauheim (*Therapeut. Monatshefte*, March, 1896), has found that (1) it acts best in pure angiospastic forms of angina pectoris, not so well in cardiac pain due to aortic aneurism, and is often of no use at all in the pure motor neuroses of the heart; (2) its action on different people can never be predicted; (3) if toxic symptoms appear after a small dose it is best to discontinue the drug altogether; (4) if no toxic symptoms appear, gradually increasing doses can be given safely; (5) the form of administration is important, as Schott has found it to be most active given in a liquid medium, and combined with tinct. capsici. spir. rect., and aq. menth. pip.; (6) it acts surprisingly quickly and its action is generally at its height after two or three minutes; (7) it is generally necessary, when several small doses are without effect, to give larger doses. In some cases a single large dose acts best; (8) it is certain that much more than 1 mg. ($\frac{1}{64}$ of a grain) can be given as a single dose.—*Ibid*.

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CONSUMPTION MUST GO.

Not long ago we ventured the opinion that among the signs of the coming of the medical millennium were the rapidity with which the medical world was possessing itself of the knowledge of the causes of zymotic diseases, and the effective hygienic measures now applied to their arrest, limitation, and extermination.

And in this connection we said that the elimination of phthisis from the causes of death—nay, the stamping of it off the face of the earth was a problem which sanitary science was rapidly bringing to a solution, and that when "men shall become as much in earnest in the securing of health as in the securing of wealth it will be done."

Whether the fulfillment of such a prophecy might be expected in less than a century hence we leave to clearer and wiser seers; but that the arbitors of sanitary affairs are now giving the question serious attention is certainly an omen of great promise for good.

The New York Board of Health, than which there is not a more efficient sanitary organization in the world, has recently submitted itself to unfavorable criticism in some quarters, and commendations in others, by issuing a compulsory notification act in the matter of pulmonary tuberculosis.

The New York Medical Record, with the clearness and practical good sense which characterizes its editorial utterances, suggests that the

law must become a dead letter because of the impracticability of its enforcement. The editor says:

The board of health of this city has done some excellent work and has won the respect of the medical profession as well as of other citizens, but it will make itself an object of ridicule if it promulgates laws which it can not enforce. It has recently proposed to declare tuberculosis a contagious disease, and to compel its notification. We do not know what it proposes to do with the consumptive after it catches him—perhaps to send him a notice that spitting is a disgusting practice and dangerous to public health.

And again the editor, referring the large number of letters he has received from doctors in different parts of the country commending his position, opines:

It has left no doubt in our mind that the profession here and elsewhere is inclined to the belief that the actual necessities for the measure are very much exaggerated and out of all proportion to the good results that are promised. As an instance of the current opinion we quote the following, received from a well-known medical gentleman of Chicago:

"It is with much satisfaction that I have read your editorial in last week's Medical Record, in protest against the action of your board of health in the matter of pulmonary tuberculosis.

"It seems to me that our various boards of health are in great danger from the unscrupulous and ignorant political doctor on the one hand and from the idiot savant on the other. In many of these organizations we find some clever bacteriologist, who is an expert with the microscope and test tube, but who has not sufficient knowledge of human nature to secure a living outside of the laboratory in which he is employed. It is a real misfortune when these people are allowed full swing. If the boards of health be permitted to exercise such authority, the liberties of the medical profession will vanish into thin air, and we shall have to practice according to the dictates of some insignificant secretary, who has arrogated to himself the powers of a board of which he is not even an official member.

"I doubt not, if your board persists in its course, that it will soon be able to report an enormous reduction in the number of cases of pulmonary tuberculosis in New York. They will die all the same, but they will not die of tuberculosis—just as scarlet fever and diphtheria in Chicago have become infrequent, because only reported when it is safe to do so. In the mean time, what is to be said in favor of wholesale education of the medical profession into habits of evasion and contempt for sanitary authority? What will become of popular confidence in the inviolability of medical secrets, when the unfortunate victim of incipient tuberculosis finds himself under police surveillance as a consequence of asking counsel of his family physician?"

These are very pertinent questions at this time. If they in any degree pertain to motives actuating our own board, it may be prudent for it to wait and look before it is too late to jump back gracefully.

But such deliverances after all are wide of the point. Whether the politician, who is too often a doctor, is likely or not to profit by the measure, or whether the bacteriologist is too myopic to entitle his views of a sanitary problem to respect, has nothing to do with the case—nor is the imputation of dishonesty on the part of the general practitioner in evading the law in any way pertinent. It is probable in the present state of political economy that the notification and isolation of cases of pulmonary tuberculosis is impracticable, and that the Record's position that the board is foolishly making a law which can not be enforced may remain unshaken, but this is no good reason for declaring that the dangers of personal infection in tuberculosis are "exaggerated," or that a doctor could find any thing higher than low prudential motives for evading or breaking the law in a given case.

We think the following from the Boston Medical and Surgical Journal is more in accord with the science and ethics of the question.

The editor says:

We can not but think that these provisions are in the line of future progress in the application of medical and sanitary science. Laws are only useful in so far as they can be enforced, and enforced with less loss and injury than is entailed by their absence. The useful and possible enforcement of the regulations under discussion will depend very greatly upon the tact, discretion, and good judgment of those entrusted with carrying them out. The working and the results of these regulations in New York will be watched everywhere with much interest.

The question of diagnosis, of isolation, of treatment in the large sense, is decided to-day in the laboratory rather than at the bedside. There is a danger of being too ready with these new-found weapons, of expecting too much from them; but there is also the danger of rejecting them because they are new. The general practitioner may be a very desirable check upon the enthusiastic bacteriologist, but the practitioner, the hospital clinician, and the bacteriologist should all cooperate cordially and heartily together, and carry the general public along with them by example as well as by precept. There is work for all, and distinction to be gained from good work by all, but there should be no room for jealousy and no time for hindrance.

To this the Medical News adds the following:

As confirmative of the wisdom of the board of health in taking the position it has, the facts presented by Dr. Hance in a recent paper before

the Academy of Medicine are of interest. The paper was entitled "A Further Study of Tubercular Dust," and was based upon experiments made by the reader at the request of Dr. Biggs. As a result of one of these experiments, three out of four guinea-pigs that had been inoculated with dust taken from a tenement-room in which a phthisical woman had lived and died, developed tuberculosis and died with well-marked lesions of the disease; while four guinea-pigs inoculated with dust taken from a room where a patient with tuberculosis lived, but who observed the regulations of the board of health, at the end of fifty-seven days, when the animals were killed, were apparently perfectly healthy.

Notes and Queries.

EXPERIMENTS WITH THE LABORDE METHOD OF RESUSCITATION.—The Laborde method of resuscitation consists in rhythmical tractions on the tongue, about eighteen to twenty a minute in number, continued for a variable period of time, and in case of necessity persisted in for an hour or more. This method is reputed to have been of service in cases of submersion, and in those cases where respiration and even the heart cease action during the administration of chloroform or ether.

At the suggestion of Professor Austin Flint the following experiments were made, in which I was ably assisted by Messrs. Newman and De Mund.

Experiment 1. A medium-sized dog was quickly killed with a considerable amount of chloroform administered by inhalation. As soon as it was made certain that the heart had ceased its action, the animal's tongue was seized firmly with the fingers covered by a towel to prevent slipping, and rhythmical tractions were made. This was continued for two hours. The result was negative; not at any time during the treatment was there the slightest evidence of an attempt at respiration, nor was there any other evidence of return of animation. This experiment was deemed a severe test of the possible usefulness of the method, as a large amount of chloroform was rapidly administered, and the fact was borne in mind that chloroform acts primarily upon the heart.

Experiment 2. A medium-sized dog was submerged in water for fifteen minutes. The animal ceased struggling at the end of one minute and ten seconds. Upon removal from the water the dog was placed on the table and, after it was ascertained that life was extinct, tractions were made on the tongue as in Experiment 1. Again there was no result whatever.

Experiment 3. Two dogs of about the same size were simultaneously submerged for three minutes and a half. Upon removal from the water one dog was left to himself as a control of the other which was to undergo

tongue tractions. The animal to be treated was placed upon the table and two minutes allowed to elapse, in order to make certain that life was extinct. Then tongue tractions were made and continued as in Experiment 1. Neither of the animals showed any signs whatever of re-establishment of function, and this experiment also was negative in result.

Experiment 4 was practically a repetition of Experiment 3, two dogs being used, one as a control of the other. But no result was achieved in this case, although both animals struggled to within fifteen seconds of the time when they were removed from the water. Indeed, restricted muscular tremor was present in both animals for some minutes after they had been removed from the water. While this muscular tremor is of no particular significance, it might, perhaps, be fairly assumed that very little "stimulus" to the heart or respiratory center would have been sufficient to arouse functional activity.

Experiment 5. In this case an effort was made to imitate the phenomena attendant upon death from chloroform inhalation as it occurs in the administration of this agent from anesthesia. A good-sized adult dog was chloroformed, and after anesthesia had been produced the chloroform was slowly increased until respiration ceased. Now the chloroform was discontinued, nor was any of it given subsequently. With the phonendoscope it was determined that the heart was still acting, and it continued to do so more or less irregularly until, at the end of one minute and forty-five seconds after the cessation of respiration, it stopped entirely. Tongue tractions were immediately begun and continued for an hour. There was absolutely no result whatever.

It will be seen from the foregoing observations that the method of resuscitation was given tests of considerable variance as regards severity. While it is true that in Experiment 1 a large amount of chloroform was administered, and in Experiment 2 the animal was submerged for fifteen minutes (a considerable period of time), still, in face of the contention by Laborde that persons that have been submerged for an hour have been resuscitated by this method, these tests would seem to be fair enough. But further than this, it will be seen that in Experiments 3 and 4 the animals were submerged for three minutes and a half, and then left to themselves for two minutes, making a total of five minutes and a half only, and still resuscitation was not achieved. Indeed, in Experiment 4 there was the muscular tremor already alluded to; surely here resuscitation should have been successful. And last of all, Experiment 5, it seems, can well be called a fair test. Without recapitulating the entire observation, attention is called to the fact that tongue tractions were begun *immediately* after the heart ceased acting, and that no time was allowed to elapse as in the other observations. As a matter of fact the observations here recorded leave little doubt that the Laborde method of resuscitation leaves much to be desired, and that it is not to be employed to the exclusion of the other methods now in use.—*Dr. H. A. Hanbold, in New York Medical Journal.*

THE ANTITOXIN TREATMENT OF DIPHTHERIA.—G. P. Oleinikow (*Bolnitsnaja Gazeta Bolkina*, No. 10, March 12, 1896,) reports on a series of cases of diphtheria treated with antitoxin during the period of October, 1894, till November, 1895, the total number being 185. Of these, however, nineteen must be deducted, for twelve died within twenty-four hours after admission, and seven died from scarlatina and measles. There remain, therefore, 166 cases. All of these cases had exactly the same treatment, local and general, as was used at that hospital before the introduction of the antitoxin. It may be added that the cases in question had been of a most severe nature, as, on account of the serum supply being very limited, it was used mostly in severe and advanced cases of diphtheria. The results obtained may be summed up as follows: (1) Lower mortality. This was especially remarkable in patients under five years of age, whose mortality from diphtheria, as compared with the statistics of the previous years, amount to nearly forty-six per cent, while for the period in question the death-rate went down to thirty per cent. (2) Earlier disappearance of the membranes. In 120 cases in which antitoxin had been used, it was observed that the pharyngeal membrane entirely disappeared from the ninth to the tenth day of illness, while in other sixty cases of diphtheria—some of these were even of a milder form—not treated with antitoxin, the same effect did not ensue until the twelfth day of illness. (3) Markedly more rapid improvement in the general condition of the patient. The author is of the opinion, expressed by previous observers, that the chance of recovery is the greater the earlier the treatment is commenced, and that not much benefit is to be expected after the seventh day of illness. In his cases the patients were mostly admitted to the hospital on the third or fourth day of illness; in three, however, the antitoxin was given as early as on the first day of illness, and they all recovered; of ten others, in which the administration of the serum took place on the second day of illness, only two died. As regards dosage, the dose first given was of 600 to 1,000 units, and on the following day, according to the state of the patient, injections of 1,000 to 2,000 unites were administered. Complications: In twenty-three cases out of the total number urticarial and scarlatinous rashes were met with; they occurred from the second to the tenth day after the injection, starting at the site of the puncture and being marked by rise of the temperature. Sequelæ: Post-diphtheritic paralysis was also observed among these cases, and some of these palsies showed great tendency to general spreading. Bacteriological examination was carried out in ninety-four cases, and in all except two a typical growth was obtained. Age: Under two years of age there were twenty-two patients, eight died=thirty-six per cent; from two to four years old, forty-seven patients, thirteen died=twenty-eight per cent; from four to six years old, forty patients, eleven died=twenty-seven per cent; from seven to twelve years old, thirty-three patients, two died=six per cent. Over twelve years old there were twenty-three patients; out of this number three died=thirteen per cent.—*British Medical Journal*.

PHARMACEUTICAL PROGRESS IN THE LAST QUARTER CENTURY.—Mr. William Martindale, in his presidential address before the British Pharmaceutical Conference at its thirty-third annual meeting at Liverpool, reviewed the progress made in pharmaceutical knowledge and art since the last meeting in Liverpool, a quarter of a century before. He called attention to the exhibit of that year (1870) because it was the first opportunity that he as well as most of the members had "of seeing and testing the physiological effects of what was then little more than a curiosity, namely, amyl nitrite. We now have quite a cluster of these nitrogen compounds used as arterial dilators—isobutyl nitrite, sodium nitrite, nitro-glycerine, hydroxylamine, and more recently erythrol nitrate."

It will be interesting to many whose therapeutics and materia medica have been all of recent years, to read how many of the drugs he thinks of long standing are really of only a few years' recognition. For instance, chloral hydrate was first exhibited at the meeting in 1869. "Boric acid was but a chemical rarity previous to 1875; it is now produced in tons for medicinal use as well as for the purpose of preserving milk and foods, though it is now being somewhat superseded by formic aldehyde." Carbolic acid as a surgical antiseptic dates from about 1868, while salicylic acid is of still later use, being rarely used before 1876. "The eucalyptus products were comparatively unknown here till 1880." The use of the active principles and alkaloids has risen almost wholly within the last twenty-five years. The mydriatics atropine, hyoscyamine, and scopolamine were not then defined, while homatropine had not been found nor physostigmine come into use. It is especially interesting to read his words on anesthetics. He said: "As a general anesthetic ether has to some extent replaced chloroform, which was almost solely used at that time."

With the advance in chemical methods the cost of production has with most drugs been greatly reduced, though this factor has not in his opinion always the same bearing with regard to the popular use of medicines that it has in commercial economy; for example, quinine is not used in a popular way in England "to any thing the extent that it was when its value was five to ten times what it is now. The public and the medical faculty have no reason to complain of the costliness of drugs at the present time; when required in quantity or for hospital use, they are with few exceptions supplied at much lower prices, as well as in a state of greater purity, owing to more extensive manufacture, commercial enterprise and chemical ingenuity than was possible twenty-six years ago."

To this, however, he adds the very fair comment upon the cost to the patient of his medicines and the just reason for the pharmacist's charges: "But the cost of distribution, which is not merely a trade distribution, has to be taken into consideration; here the comparatively small demand for most of the articles used in medicine precludes the distributor or retailer from supplying them to the public at a commensurate reduction in price, as the judgment necessary in the distribution of medicine and the care

and skill requisite in their manipulation has necessitated the careful and scientific training of those who deal in them. Hence his remuneration is not for material supplied but for special service rendered, and is therefore in many cases out of proportion to the actual commercial value of his commodities. This applies to the simple sale of drugs, though the argument is much stronger when applied to the compounding of medicines."—*Boston Medical and Surgical Journal*.

THYREOIODININ.—In the *Münchener medicinische Wochenschrift*, 1896, No. 14, there are three articles on thyreiodinin—the first by its discoverer, Dr. E. Baumann, the second by Dr. E. Grawitz, and the third by Dr. A. Hennig. Abstracts of all of them are given in the *Centralblatt für innere Medizin* for September 19th. Baumann describes thyreiodinin as containing nitrogen and iodine in very stable combination and as being almost insoluble in cold water and in ether. It gives off no iodine hydride on being boiled with dilute acids. In this respect it has a remarkable resemblance to an iodine compound recently prepared by Drechsel from corals. Only a small amount of free thyreiodinin is contained in the thyreoid gland, most of it being combined with albumin and globulin, but by repeated extraction with diluted chloride-of-sodium solution all the iodine compounds may be removed from well-minced glands. Since an effect is often seen earlier from thyreiodinin than from the fresh gland, it may be assumed that thyreiodinin is the active principle of the gland.

A curious thing mentioned by Baumann is the fact that numerous observations show that in Hamburg and Berlin the thyreoid gland contains much more iodine than in Freiburg as a rule, and that this is particularly the case with children, in whom the amount is relatively small. The quantity of iodine contained in the gland seems to be but little influenced by disease, but to be notably increased if iodine in any form is absorbed. Since only a very small amount of iodine is found in goitres, and since the amount found in the gland in goitrous regions is small, it seems probable, says Baumann, that the old doctrine of the influence of the quantity of iodine present in a locality—in the food, in the air, and in the water—on the development of goitre receives fresh support. Iodine is an element necessary to life, and if no marine fish are consumed, it must enter the system chiefly in the vegetable food.

Baumann has recently succeeded in finding iodine in the thymus of the calf, and he thinks it probable that in that organ also it exists in the form of thyreiodinin. In most instances when the amount of thyreiodinin contained in the thyreoid gland has once been increased by the ingestion of iodine into the system it remains abnormally large for a long time. Ordinarily, therefore, a good deal of thyreiodinin is found in the thyroids of persons who have taken iodine for a time. This is true even of goitrous individuals, although usually the amount of iodine contained in a goitre is smaller than that contained in the healthy gland.

Grawitz's article is on the action of thyroiodinin on metabolism in obesity. Both he and Hennig have found it prompt and decided. Hennig's results with the remedy in goitre have not been constant, and he has observed no effect from it in exophthalmic goitre, but, on the other hand, certain affections of the skin and of the sexual organs have seemed to him to lie within the range of action of thyroiodinin. Among the untoward effects he mentions headache, attacks of dizziness, palpitation of the heart, tremor, increased frequency of the pulse, and temporary albuminuria and glycosuria.—*New York Medical Journal*.

A METHOD OF INVITING SLEEP.—The following method of inviting sleep to tired, overworked and overworried brains has proven of infinite advantage in my experience so far as tried.

On retiring put in use, by contraction, a certain group of muscles; change to another before exhaustion, to another, and thence to another, having a definite routine; and continue until a sense of fatigue has come. The brain meantime is asked to keep a record of the respirations and of the muscular engagements in their order until it too says, "Enough!" A few minutes generally suffices.

Will sufferers be willing to use any methods or agents foreign to *materia medica*? Will the profession venture to suggest any? Sleep immediately on retiring is restorative. The drug does not make it so, continuously used. Wine, tobacco, tea, coffee and late suppers, with social and emotional excitement often delay the hour of sleep.

Will you, or will the reader of this proposed method, say if you have any experience with it or any similar experiments and give results? My own personal needs were at the foundation of this "discourse." Conditions of the heart, digestion, and nervous system should not be ignored in any case of insomnia. The sufferers are abundant everywhere now.—*J. B. Learned, M. D., Boston Medical and Surgical Journal*.

BERI-BERI IN RICHMOND ASYLUM, DUBLIN.—Since last report there have been no fresh cases. The patients who are at present under treatment for the disease are subject to repeated relapses, but fortunately there is no death to record since our last notice. In all one hundred and fifteen have been attacked—eighty-three women, including seven nurses, and thirty-two male patients. There have been six deaths on the female side and two on the male.—*British Medical Journal*.

SIR JOSEPH LISTER'S PEERAGE.—We are glad to be able to announce that Sir Joseph Lister on being raised to the Peerage has selected the title of Lord Lister. It is eminently satisfactory to find that he will still be associated with the name which he has made famous throughout the scientific world, and that his identity will not be obscured under some territorial designation.—*Lancet*.

Special Notices.

CONSTIPATION NOT HARMFUL.—An editorial in a recent number of *Practical Medicine* discusses the subject as follows:

"One of the most remarkable articles we have read in some time recently appeared in one of our exchanges. We would think but little of such an article did it not come from one of the faculty of the Post-Graduate College. The writer declares that constipation, even for a long period, brings no bad results whatever. He says that it is "a experience which physicians make every day" that patients are "kept in bed for weeks without any movement of the bowels, and yet there are no bad effects."

In treating a case of chronic constipation the author says: "It is best to tell the patient not to take any drugs and not to get alarmed if he has no movement for about a week." While such advice may be in strict accord with some new discovery in the bacteriological laboratory, yet it is precisely contrary to the experience of almost every physician who has had any thing to do with practical observations at the bedside. Instead of modern methods teaching us something new in this line, we believe that they rather the teaching of the old Scotch proverb, that you will be all right if you trust in God and keep the bowels open.

At the last meeting of the Mississippi Valley Medical Association Dr. I. N. Love, of St. Louis, expressed himself exactly according to our belief when he said: "There can be no doubt that the majority of diseases which afflict human beings, male and female, are largely dependent upon constipation.

Just in this connection might properly be added the best relief and the best cure for this condition. We refer to Syrup of Figs as prepared by the California Fig Syrup Co.—excellent, economical, effectual.

THE MODIFICATION OF COW'S MILK FOR ARTIFICIALLY FED INFANTS.—In order to prevent the firm clotting to which cow's milk is prone, some alkaline solution may be added, or some prefer to use a small quantity of a mucilaginous, or other thickening substance, such as barley water, a solution of gelatin, or one of the prepared foods, which act mechanically in obviating the formation of firm clots. Mellin's Food may be used; in this the starch has been converted into dextrin and maltose.—*From Food in Health and Disease, I. Burney Yeo, M. D., F. R. C. P.*

I HAVE used Peacock's Chionia and find it a very efficient preparation in hepatic torpor, a condition so prevalent in this region. In one case where many of the well-known remedies had been in persistent use and gave little if any benefit, Chionia combined with small doses of Culvers Root placed the patient on her feet in a few weeks, and what is best of all she has had none of the troubles since.

J. C. BANTA, M. D., Abrams, Wis.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

DIASTASE IN THERAPEUTICS.*

BY C. C. FITE, M. D.

The sprouting of a seed was considered, until quite recent times, a great mystery; not until diastase was discovered could we properly understand why a seed after being placed in a moist soil began to develop into a plant after having lain dormant perhaps for years. Under proper conditions the life endowed germ is no longer a sleeping unknown quantity, but it is an active principle and the process of development begins.

The sprouting of seed is a very interesting subject for scientific study, this awakening of the germ life by the influence of heat and moisture, and the action of diastase in converting the starch of the seed into maltose, which afterward becomes fibrous or cellular tissue. We will not go into a discussion here in reference to the secretion by the plant of fluids which, acting through the delicate roots, absorb and utilize the soil elements; of the important work done by the leaves in taking carbon from the atmosphere; and by these and other processes completing the growth of the plant, and eventually a reproduction of seed to continue the life of the species indefinitely.

Let us now leave the plant and refer to the important factor in the growth and development of animal life, the ptyalin of the saliva, a product analogous in many respects to diastase. Just as nature places

*Read before the New York Medico-Surgical Society, January 4, 1897.

diastase in the grain to produce the changes leading up to a higher growth, so she gives animals ptyalin to convert the starch and perhaps other foods into assimilable material for nourishment, for heat, and a reserve supply of fat. I use the words nourishment, heat, and fat advisedly. The starch so converted is nourishment, and it is the basis of our caloric energy. Our supply of fat comes mainly from the starch changed into maltose by the ptyalin, supplemented by the pancreatic secretions, and it is changed into oil later on in the process. This oil is not only utilized for heat but stored in the tissues as a reserve supply.

It is well to bear in mind that few carnivorous animals take on a great degree of fat; grain-eating animals do. Give swine all the fat and oils they can eat, and they will not gain in weight half as quickly as when fed on grain alone.

The function of ptyalin is to convert starch into dextrin and maltose, this being the preliminary step, and goes on in the normal stomach for from thirty to forty minutes after the close of an ordinary meal, when the acid peptic digestion stops the diastasic process. The duodenum, holding the pancreatic and other secretions, takes up the partially changed starch and completes the conversion. We need not follow the process beyond this point.

It has long been observed that we do not get altogether satisfactory results in the treatment of amylaceous indigestion with pancreatic extracts. This is probably due to the fact that the amylopsin of the pancreatic juice and the other various duodenal enzymes are intended more for completing and finishing the changes already begun by ptyalin before the peptic digestion supervenes, and are not adapted for this preliminary conversion in the stomach. In other words, they are not suitable for beginning the conversion in the food mass as found in the stomach—acting, we might say, on the mass later when it is an acid body, during the time it is being changed from an acid to an alkaline reaction, instead of on the alkaline or neutral mass when it is being changed into an acid mass. We see, therefore, that while ptyalin and amylopsin are practically identical in their action on starches, nature intends them to act under different conditions and at different periods of the digestive process. Therefore we should not give pancreatic extracts with the expectation that they would render desirable service in the stomach, but we should rely upon either increasing the supply of ptyalin by slowly masticating the food, or by giving a ferment having similar properties to ptyalin; this we have in diastase.

From the discovery of diastase in malt until quite recently many attempts have been made to produce it in an isolated form economically enough to be used freely in medicine without having to give it in the form of the semi-solid malt extracts which have been the only reliable form of it readily obtainable by the profession, as the liquid malt extracts do not contain an appreciable amount of diastase.* The disadvantage in its use in malt extracts is that we have to give a large bulk of the extract to get a very small quantity of diastase; then, too, the extract contains fermentable sugars and extractive matters which may not only be of no value but may give rise to fermentation in the stomach or intestinal tract.

So far the only chemist who has succeeded in producing an isolated diastase economically and on a large scale is Jokichi Takamine, the Japanese chemist. (See the *London Lancet*, May 25, 1896.) This investigator received his scientific education at the Glasgow University. He devoted some years to the study of malting and the production of diastase and other ferments, and upon his return to Tokio was fortunate enough to find that *Eurotium oryzae* was what he desired. The process he finally perfected is in brief as follows: The seed of the eurotium is sown on moistened and sterilized wheat bran. The growth is rapid, and after the plant has reached maturity he calls the bran with the growth on it "Taka-Koji." Upon examining this growth under the microscope it is found that the roots of the *Eurotium* which have penetrated the bran are covered with crystals of pure diastase. These diastase crystals have the property of converting the starch of the bran for the nourishment of the plant. Takamine named the diastase so produced taka-dia-stase. In preparing this diastase for use in medicine it is necessary to get rid of the spore. This is done by percolating the taka-koji with water and adding to this solution of diastase alcohol, when the diastase is precipitated and the activity of the spores destroyed. It is then a simple matter to further purify the diastase and preserve it in a dry, powdered form indefinitely.

This diastase, owing I presume to its being an isolated substance, acts much quicker than the diastase found in malt extracts. It will convert 100 times its weight of starch in ten minutes under proper conditions; if the process is continued for three hours, 1,500 times its weight. It is therefore evident that its amylolytic-converting power is quite marked, and the theoretical position that it would prove of

* See *The Boston Medical and Surgical Journal* for December 31, 1896, page 669.

value in the treatment of amylaceous indigestion has been verified by careful observers many times over.

Prof. Leo, of Bonn, claims that this diastase exerts its action in a higher degree of acidity than was first claimed by those of us who had experimented with it, and that it is therefore superior to ptyalin in its starch-converting power. He has employed it with benefit in cases of deficient salivary secretion, as also in hyperacidity of the stomach.

Dr. W. S. Christopher, of Chicago (*Therapeutic Gazette*, March, 1896), holds that flatulence is due to micro-organisms which attack unchanged starch and give rise to fermentation, and that it is therefore important in these cases to predigest the starch in the stomach, and the more complete this process, the less food there is for the micro-organisms to act upon in the duodenum. He finds that the administration of diastase in these cases gives satisfactory results.

Dr. R. W. Wilcox, of this city, has given very close attention to the therapeutics of this question, as shown by two papers he read some months ago: one before the New York State Medical Society, January, 1896, and one before the New York Academy of Medicine, February 18, 1896, both papers being published in the *Medical News*.

Other favorable clinical reports which have attracted my attention, which may be mentioned here, are in the *Journal of the American Medical Association* for August 15, 1896, by Dr. T. H. Allen; in the *Medical Age* for July 25, 1896, by Dr. F. Spencer Halsey, and in the *Therapeutic Gazette* for September 15, 1896, by Dr. Wm. A. Walker.

In the practice of some friends, who have reported the matter to me for elucidation, this form of diastase seems to have other properties than its action on starch. In one notable case in which pepsin and other methods of treatment failed to give any benefit, although every symptom and test seemed to indicate that it was an undoubted case of albuminous indigestion, the result was not only palliative but curative. I have endeavored to have this matter settled by laboratory experiments, but so far the results have not been entirely conclusive; so any theory on this question for the present must be based mainly upon clinical evidence. This diastase does, as was shown by the experiments referred to, *disintegrate* albumins, but the proteolytic action *apparently* stops short of the production of albumoses and peptones. As to what takes place in the intestinal tract of course we can not yet say. It is altogether probable that the benefit in these cases is due to the promptness with which the first period of digestion is car-

ried on and the conversion instead of the fermentation of the starchy foods, leaving the second process, the acid peptic digestion, to go on normally without being interfered with by deleterious products, and the partial disintegration above referred to doubtless promotes the activity of the gastric juice by giving it freer access to the particles of albumin.*

We should always bear in mind that we have from thirty to forty minutes after the close of an ordinary meal in which the action of ptyalin or diastase will continue before the acidity of the stomach contents reaches the point at which such converting power is impaired or destroyed. The proper theory for the administration of diastase is that it supplements the ptyalin of the saliva, and the more thorough the preliminary digestion in the stomach the less work there is to be done in the duodenum. The formerly prevalent theory that pancreatic extracts and diastase ought in some mysterious way to find their way through the stomach into the duodenum, and there begin their work, is too absurd to be entertained. (See Dr. Walker's article above referred to.) I am indebted to Dr. Henry Dwight Chapin for information in this connection (N. Y. Medical Journal, September 16, 1893), the results of some elaborate experiments which he had made in the Post-Graduate Laboratory in 1893. The experiments were made with a product containing diastase; the stomach was washed out, and after the subject had been properly fed the diastase was administered in certain cases and omitted in others. The report made to Dr. Chapin by the chemist in charge of the work was, that, when the stomach was emptied forty minutes after the administration, the percentage of food remaining in the stomach at this time averaged, when diastase was not given, 52.02 per cent; with diastase, 29.2 per cent. This showed very conclusively the action of the diastase in the stomach. An analysis of the solid food remaining in the stomach showed that when diastase had not been administered, 7.02 per cent were undissolved; when it was given, only 3.45 per cent.

*Since this paper was written I have been informed by Mr. F. A. Thompson, a skillful Detroit chemist who has given close attention to this subject and performed a number of elaborate experiments with diastase and other digestive ferments, that he has found that Taka-diastase does undoubtedly not only disintegrate albumins, but produces albumoses and peptones as well. This is an important and interesting discovery, and perhaps confirms the work of the German chemist, Bezanes, who found that in producing diastase from malt, a by-product, which he named peptase, was formed, which acts on albumin. It is therefore evident that as there is formed in grain a product to change the albumin of the grain as well as the starch-converting ferment, so the eurotium has a ferment similar to peptase for converting vegetable albumin for its nourishment. The peptase produced in malting is extremely slow in its action, due perhaps to its being interfered with by the thick gummy malt products.

Experiments with diastase have not up to this time been as satisfactorily conducted as those made with pepsin, for the reason that diastase is a sensitive body, and the value of any laboratory or test-tube experiments are apt to be contradictory, unless proper precautions are preserved as to the degree of heat used, and the various brands of starch found in the market vary in reaction and in their sensible properties. It is to be hoped that we will soon have definite tables in use for this work, so that, all experiments being made by a uniform standard, the results can be more intelligently compared and studied.

I might add, in conclusion, that the therapeutic properties of diastase have not yet been as thoroughly investigated as could be desired. A good deal of careful work is now being done by investigators in this and other countries, and I am confident that the literature of the subject will be enriched very greatly in the near future.

So far little has been done with diastase in practical medicine beyond its use in typical cases of amylaceous indigestion. What we may expect from its employment in partially converting the starch of barley water for infant feeding remains yet to be determined, but I am very hopeful of its use in such cases. The fact of the casein of cow's milk being so much more dense and liable to form tough curds than human milk has led me to hope that if we partially convert the starch of the barley water it will become not only a mechanical diluent for milk, but a readily absorbable food as well, which will nourish and not give rise to fermentation and flatulence.

Some time since I witnessed several experiments in bread-making made by Mr. C. von Egloffstein, then of Yonkers, now of Brooklyn, N. Y., to determine the value of diastase in rendering bread more soluble. His conclusions were that the soluble matter in ordinary bread in water at a temperature of 100 degrees F. represented at the end of an hour 15 per cent, whereas when a proper amount of a product containing diastase was added to the bread before baking the soluble matter under the same conditions was 40 per cent.

It is more than probable that diastase will play an important part in the therapeutics of the future.

NEW YORK, N. Y.

TREATMENT OF HEMORRHOIDS.

BY JOHN MASON WILLIAMS, M. D.

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In taking up this subject I am well aware of the fact that it is one that is much worn from use and abuse; however, it is of the greatest value and deserves a liberal discussion, as we have yet to invent an ideal treatment, either medical or surgical. As to the medical treatment it might as well not be considered, as such agents as are recommended will be used with little or no satisfaction, and aside from surgical treatment I have more faith in and use for the frequent application of cold water and careful regulation of the bowels. Whenever I see a case that refuses an operation of any kind, this simple treatment is my usual advice. It is different when considering the treatment surgically, as we have at our command several methods which will give satisfactory results and establish a permanent cure. Of these methods I shall speak very briefly. The two most popular methods in favor to-day are the ligature or Allingham operation and the clamp and cautery. However, other methods, such as carbolic-acid injections and the excision of Whitehead have their respective followers. The oldest and time-honored operation of the ligature is still popular with many eminent surgeons, but with all this you must admit that there exists some serious objections which we have been unable to overcome. It may well be said that all operations have objectionable features, and upon this we must agree. But I do mean to say that there is an operation for the cure of hemorrhoids that has fewer objectionable and less serious after-effects.

The technique of the ligature operation you are most familiar with, and it is very simple, as must all methods be for this region. First, an operation to be thoroughly complete and conducive of best results should be done under a general anesthetic, as the sphincter ani should be thoroughly divulsed in doing any operation within the rectum or anus. However, I have been able by use of cocaine, in form of Schliach solution, to dilate the sphincter and remove a polypus or cure a fissure; but it was not without pain, nor was the divulsion as thorough as I should like. The patient under an anesthetic, and the sphincter relaxed, the piles are brought prominently into view, each tumor is grasped separately with pile forceps and pulled down; the scissors are now passed

through the lower aspect of the base and a ligature is thrown into the groove or sulcus thus made and tied tightly above, the ligature is cut off close to the knot, the tumor is next amputated at a point not too close to ligature as to cause it to slip. The ligature should be of heavy silk, so that it will not cut through too quickly and cause a secondary hemorrhage. The ligature will usually slough away in from seven to fourteen days.

The bowels may be confined for a week or until the ligature sloughs, as is often done. I believe, though, that the bowels should be moved by a mild purgative, preferably a saline, on the beginning of the third day, followed by an injection into the rectum of two or three ounces of sweet oil shortly before the action. The bowels being confined for a week may be very hard to move, and will cause great pain which is often almost unbearable.

The injection of carbolic acid has been thoroughly tested in all strengths by many prominent rectal specialists, and has universally been cast aside. It has proven, however, to be of great service to many operators in those cases that present complications that contraindicate the more radical treatment. This method was a quack remedy for a long time, and was used by the irregulars with more or less success, especially those that traveled from one town to another, often the pricking of a needle being the only pain, and a cure resulting. In many instances, however, an abscess was the result, and then a surgeon or physician got the after-treatment. This method consists in the injection of carbolic acid with glycerine or water, 1 to 10 or 1 to 12, with an ordinary hypodermic needle in the most prominent part of the tumor, near its center, each tumor to be injected separately, and never more than one pile at a sitting. When the solution is deposited at exactly the right point every thing goes well and a beautiful cure is the result, but when the needle goes a little too deep there will be an abscess with resultant fistulous burrowing under the mucous or muscular layer of the gut, and cases have been reported where general infection, with pelvic glandular involvement and no localization, occurred and ended fatally. Oftentimes no pain is experienced; again severe pain may come on in a few hours and continue several days; again it will be frequently necessary to catheterize for forty-eight or seventy-two hours. Kelsey, of New York, was very enthusiastic over this new method several years ago and adopted it almost exclusively, and his first two hundred cases did remarkably well, and he experienced very little serious after-effects

then all at once he had a terrible run of serious results, such as sloughing *en masse*, large abscesses, fistula and general septicemia. Losing several cases, he changed all hypodermic needles and secured new solutions, but to no effect; and after this he abandoned the method altogether, and shortly afterward adopted the clamp and cautery, which he uses to-day.

The excision, or Whitehead operation, has been used by Weir probably more than any American operator, and he is our best authority on this operation. The operation consists of a circumferential incision at the muco-cutaneous juncture and the dissecting up of the mucous membrane to a point above all diseased or pile-bearing surface, as it were. The bowel is brought down, and a transverse or circular incision is made, and the healthy membrane sutured to the previously made circumferential incision. This is an ingenious operation, and one that may often be found adapted as the best for a limited number of cases, but we can not consider its adoption for general use. If the line of incision unite by first intention, you may expect a flabby or redundant anal orifice, or, if union fail, you will have an ugly ulceration that will usually heal slowly, and if it be severe a stricture may result. This operation should be used only in those cases where the whole venous plexus is involved, or those cases of prolapsed hemorrhoids where it is especially applicable.

We now consider the most nearly ideal operation for radical cure that we possess, and this is the clamp and cautery. The preparation is the same as for the ligature. After divulsing the sphincter the tumors are caught up by the pile forceps, and a slight incision through the skin, if it be an external pile, is made for the clamp to fit into. The clamp is applied and held firmly, and the tumor amputated close to the clamp. The cautery point is then applied thoroughly. The clamp, which acts only as a temporary ligature, is now loosened slowly; if there be any bleeding vessel the clamp should be closed down and the cautery reapplied.

If the cautery be well applied there will be no bleeding and no danger of sepsis. This may well be considered a bloodless operation, and it is rarely ever followed by any pain to speak of. The patients are usually sitting up or are out of bed on the second day, and many of my patients have returned to their duties on the third day, but always against my advice. They suffer so little and feel so well that it is difficult to impress upon them the importance of remaining quiet the first several days. I always move the bowels on the night of the second or

the morning of the third day, and frequently the pain at the first post-operative action is much less than that experienced before the operation.

Advantages and Disadvantages of these Methods. It has been demonstrated that the use of carbolic-acid solution injection will be followed in a majority of cases by an abscess or slough, so that this method can not be safely used, and, on the contrary, should never be used when any definite prognosis is required.

The Whitehead operation is the bloodiest of all operations for the cure of hemorrhoids. It approaches a major operation, and the dangers of infection and suppuration are so great that a stricture of greater or less caliber must necessarily result in a given number of cases. This operation, then, can not be adopted for general use to supersede all other operations, but it is the best operation to do in cases of prolapsed hemorrhoids, or hemorrhoids involving the whole venous plexus, or prolapse of the mucous membrane.

The ligature operation is usually followed by very intense pain for several days. It is frequently necessary to catheterize the patient for forty-eight or seventy-two hours, with the dangers which always must be associated with the use of a catheter. The primary hemorrhage may be considerable, and the dangers of secondary hemorrhage must never be lost sight of. The patients are confined to bed from five to fourteen days, more often the maximum period. The operation is unsurgical for the reason that it is not a complete operation. The time consumed in doing the operation is greater than that of doing the clamp and cautery.

The clamp and cautery is the quickest of all operations, is rarely followed by severe pain, and the patients are up and out in from two to four days, entirely well, and perfect cicatrization follows in five to eight days. It is very seldom that it is necessary to pass a catheter.

Practically the same condition obtains when the clamp is removed as exists when the ligature sloughs. The clamp and cautery is a bloodless operation, and there need be no fear of secondary hemorrhage following its use.

LOUISVILLE.

THE BUBONIC PLAGUE: A STUDY OF THE LITERATURE ON THE SUBJECT.

BY LEON L. SOLOMON, A. B., M. D.

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This disease, which has been called the "typhus of hot climates," is the most fatal of all known diseases which are epidemic. Depending upon the type of the malady, from fifty to ninety per cent of its victims die, and in some epidemics all who are exposed to it perish.

Definition. Plague is a specific, contagious and infectious, febrile epidemic disease, which manifests itself in several forms, more or less mild or severe, and characterized by the formation of glandular swellings situate in various parts of the body, but usually involving the groin, whence the name, "bubonic."

Derivation. The word plague is derived from the Latin "*plaga*," a blow or stroke, and has its origin in the fact that, with the brusque onset of the disease, a sudden pain is felt in some portion of the body. Superstitious Mohammedan people supposed this pain was occasioned by the stroke of a poisoned arrow fired at them by a hidden demon.

Synonyms. Other names for plague are: Bubonic Plague, Oriental Plague, Levantine Plague, Fulminating Plague, Black Plague, Black Death, Specific Adenitis, etc.

History. The disease has, in all probability, existed from the remotest antiquity, but we first hear of it in the third century before Christ, when it ravaged Northern Africa, and for a long while thereafter this portion of Africa was looked upon as the home of plague. Such a view seems natural in lieu of the fact that plague tends to reappear in localities which it has once visited, and since rats, mice, guinea-pigs, and hogs are first to show evidences of a returning epidemic, we naturally suppose the soil retains the poison during the intervals between outbreaks. Following the epidemic in Africa and during successive centuries, we have accounts of the dread disease in various portions of Europe. No country was exempt from its attacks. Inroad after inroad was made into various lands of Europe, and whole populations fell prostrate before such an advancing foe. Cities were depopulated before the alarm could hardly be sounded. The cycle of epidemics which started afresh in the fourteenth century began in Cathay, and passed by way of Armenia into Asia Minor, thence on to Egypt

and Northern Africa. The epidemic reached Sicily in 1346, Constantinople, Greece, and parts of Italy in 1347, and later in the same year Marseilles was attacked. In 1348 Spain, Northern Italy (also Rome), Eastern Germany, many portions of France, including Paris, were invaded. England was reached in the same year, and London occupied in 1349. Two thirds to three fourths of the population died as the plague swept over Europe. The type of the disease seems to have been especially malignant at all times in England. Oxford (1352) lost fully two thirds of her academical population. In 1664 London had a population of 460,000. Of this number it is estimated two thirds fled as soon as plague made its appearance, and of those who remained 68,596 died in marvelously quick time. The horrors of these epidemics which appeared in London during successive years, and up to the seventeenth century, are almost indescribable. A sporadic case of plague would appear in some part of the city. Immediately the city health officer (or more appropriately called the city disease officer) would order the house closed and barricaded. No one dared to enter to minister to the sick, just as none could escape from this living hell, not even those who were perfectly well. All were compelled to remain where they were, and of course all contracted the disease, and every soul died. Such houses were marked with a "red cross," and often an inscription over the door read: "God have mercy upon us." And when we stop to consider the reason for this onward march of plague we are confronted on all sides by the same condition of affairs.

Europe offered no barrier to the entrance of plague. On the other hand, she supplied such prerequisites as are essential to the life and propagation of the disease. She offered the proper soil by supplying on all sides decomposing and foul organic matter. Her towns and cities were crowded, streets were narrow, houses were dark, poorly ventilated, overcrowded, and filthy. Combine with this a population, the great mass of whom were poor and destitute, and the wonder is any escaped. Such was the condition of Europe during the early centuries after Christ and up to the beginning of the seventeenth century. At this time steps are being taken to remedy matters. The evil becomes evident. Europe awakens from her lethargy, and undertakes the prosecution of such hygienic and sanitary improvements as will soon redound to her credit and manifest some good. By the end of the century the good has become manifest, and since that time epidemics are much less frequent within her bounds.

To-day plague is chiefly met with in Syria, Asia Minor, and on the coast of Barbary. Besides the factors which have just been mentioned as predisposing to epidemics, moisture and a moderate degree of warmth are necessary as a rule to a rapid dissemination of the malady. High heat (even a temperature of 80° to 85° Fahrenheit, especially when associated with a dry atmosphere) will usually cut short an epidemic. Cold acts in the same way, but this is no invariable rule. At times the ravages of plague continue during the hottest of weather, and in 1878 and 1879 an epidemic raged on the Volga while the winter was particularly severe. The quality of the soil itself does not seem to have much influence on the development of plague, but in marshy places it is always much more common than elsewhere. On the banks of the Nile and the Euphrates epidemics are not at all uncommon. Low altitudes are usually affected in preference to high ones, but not invariably. In India at an elevation of seven thousand feet outbreaks have occurred. Special stress must be laid upon lowered vitality and resistance as occasioned by a lack of the essentials of life. The frequency with which plague follows famine calls forth comment. The present epidemic in India has been preceded by and is yet associated with one of the severest famines which that country has ever known. At all times and in all places it is the poor and needy who are the chief victims of plague.

Transmission. The disease is endemic in some portions of the world, and is imported into others. Transmission from country to country only occurs during an epidemic and never from sporadic cases. Fresh outbreaks will be started by some individual case, and with the proper environments the smouldering fire, which has been dormant during cold or hot weather, may, with a single focus of infection, burst into a great conflagration. When transmission occurs from locality to locality or from country to country, it is as a rule through the intervention of people, viz., persons affected with plague, who inoculate others, and not by means of merchandise which has come from a plague-stricken district, although such infection is possible, and we will have occasion to say more of it when considering the question of quarantine. Clothing and various personal effects, though much more dangerous than ordinary merchandise, are not to be feared as is an exposure to the disease proper, but the poison contained in personal effects may remain virulent for a long period of time.

Transmission by air alone is possible also, it would seem, but never

over long distances, so that we might say plague is a contagious rather than an infectious disease.

Activity of the Contagion. As a rule each individual living in a house where a single case has developed will contract the disease. Physicians and attendants who are brought into close contact with the sick are apt to contract the disease, though they at times singularly escape. The virulence of the disease, viz., the intensity of the poison and the length of time of the exposure are both influencing factors. The first scientific study made of plague, of which we have any authentic account, is reported by ten French physicians who went to Egypt during the epidemic of 1835. Of their numbers, and notwithstanding the fact that practically no precautions were taken by them, only one died. They did considerable toward working out some of the pathological anatomy of plague, making autopsies whenever possible. Their report makes mention of the disposal of dead bodies, and indicates that while the danger of handling the dead is not inconsiderable, still it is overestimated.

Incubation. The duration of the incubation in a measure depends upon the virulence of the infection, viz., upon the size of the dose. Ordinarily the incubation is three to five days, rarely as long as eight days; but if the type of the disease to which the exposure was made is virulent and the exposure was long, or for any reason a large amount of the toxic matter was absorbed, then there may be manifestations in twenty-four hours, or even in less time.

Etiology: Bacillus Bubonic Plague. This bacillus was first isolated by Yersin during the summer of 1894, while he was at work in Hong Kong. (*Annales de l'Inst. Pasteur*, 1894, No. 9, p. 662, ff.; 1895, No. 7, p. 589, ff.) I am aware that to Kitasato is usually given the credit of this discovery, but I was taught by Günther in Berlin to take the opposite stand. Günther has investigated the subject carefully, and chooses to give priority to Yersin.

Morphology and Bacteriological Stain. The bacilli are short and thick and have rounded ends. They are non-motile. The basic aniline dyes stain the bacilli readily, and we find the organism characterized by the deep staining of the rounded ends, while the middle of the bacilli appear paler in color. The Gram method does not stain the bacillus bubonic plague.

Culture. The bacilli grow best on glycerine agar, where a whitish-gray transparent colony forms on the surface. The best fluid culture

medium is an alkaline two-per-cent peptone solution, containing also two per cent of gelatine. In this medium the bacilli are characterized by growing especially short, and tend to arrange themselves in chains.

The bouillon cultures of bacillus bubonic plague resemble the streptococci cultures; the fluid remains clear, while the sides and also the bottom of the culture tube show clumps of bacteria. With the growth on artificial culture media the virulence of the bacilli is lost, but with each successive transplantation the growth becomes more energetic. Filtered cultures are harmless.

Diagnosis. The diagnostic point of greatest value is, of course, the finding of the bacillus. Cases of sudden severe disease, associated with pain, high fever, prostration, etc., attacking one or many individuals who have possibly been exposed to the contagium of plague, or who live in a section where the disease is endemic and where sporadic cases occur from time to time, should always excite our suspicion. Especially important as a diagnostic point is the *bubo*. If a famine exists or has recently existed, or if rats, mice, guinea-pigs, and other small animals which live in the ground, have lately been dying from some epidemic disease, then the diagnosis of plague is all the more readily made. The finding of the bacillus is proof positive.

Varieties. (1) *Pestis minor* or mild plague; (2) *Pestis major* or severe plague; (3) *Pestis siderans* or fulminating plague.

Symptoms. The symptoms vary considerably with the type of the disease, and must therefore be considered separately with each of the three varieties.

(a) *Symptoms of Pestis minor (mild plague):* The patient is never very ill with this type of the disease. The onset is not so sudden. There is a feeling of malaise and gradually some depression. The range of temperature is never very high, and there is not much attendant prostration. Swelling of glands, especially in the groin and axilla, takes place and suppuration may occur, but resolution of the affected parts is not uncommon. If suppuration has begun, it may continue for many weeks (often four to eight) before the process is at an end. This is the uncommon form of plague. It rarely proves fatal.

(b) *Symptoms of Pestis major (severe plague):* This is the common variety of the disease. Its onset is sudden. A sudden, stabbing pain is felt in some portion of the body, oftentimes followed by severe pains in the extremities and epigastrium. These pains and a chill, or repeated chills, usher in the disease. Precordial oppression and dis-

tress with general uneasiness and fear are often complained of. Nervous symptoms are common, and the patient is very restless. If on his feet, he sometimes staggers as if drunk, or he may roll and toss about in bed. There is headache, thirst, a swollen tongue, which soon becomes dry and cracked, and as a rule there is constipation, though there may be diarrhea. At times the tongue becomes black. Bilious vomiting is not an uncommon symptom. The eyes are muddy or suffused and the fever is very high, oftentimes reaching 106° or 107° F. This hyperpyrexia continues twenty-four to thirty-six hours, and, if the patient survives, gradually the temperature drops to 103° or 104° , where it remains for several days. Except in the rapidly fatal cases buboes appear. In 45 to 50 per cent of these cases it is in the groin that the glandular swelling is first noticed; in another 35 per cent of cases the axilla is affected, and in 15 to 20 per cent the glands of the neck and other glands elsewhere (as at the angle of the jaw) are involved.

The glandular swelling may appear before the onset of fever, may be associated with the fever's outset, or may make its appearance after the fever is gone. Except in the very severe cases, which die within twenty-four hours, it is the rule for buboes to be present in this type of plague. The glands may break down and suppurate. A copious discharge of pus is always looked upon as a good sign, just as a severe diarrhea is favorable. Not at all uncommonly carbuncles are observed on the extremities and upon the trunk. They are as a rule large and liable to end in gangrene. Petechiæ, vibices, and at times livid patches are seen in virulent cases. A perverted type of Pestis major occasionally appears.

In this type, although death takes place in thirty-six hours or less time, there is no fever. Of those who are the victims of Pestis major fully fifty to ninety per cent die. Those who survive the fifth day are very apt to recover.

(c) Symptoms of Pestis Siderans (Plague Fulminans): As the name would imply, this type of the disease proves rapidly fatal. *One hundred per cent die*, and death takes place in twenty-four hours. Buboes have had no time to appear. The fever ranges very high as a rule, and there is rapid destruction of blood cells, shown by hemorrhages from the nose, lungs, stomach, bowels, and kidneys, while petechiæ and vibices appear under the skin. In many cases these petechiæ are closely aggregated together, giving to the body a black appearance, which occasioned the name Black Death or Black Plague. By this name plague came to be known in England in the fourteenth century.

Duration. The duration of the disease is dependent upon the type of the malady. (1) Mild cases (Pestis minor) last four to eight weeks. (2) Severe cases (Pestis major) continue three to five days. Those who survive the fifth day usually recover rapidly, but three fifths of such cases die on the third day, and five sixths have often died by the end of the fifth day. (3) Very severe cases (Pestis Siderans or Plague Fulminans) end fatally in twenty-four hours or less time.

Mortality. The mortality depends largely upon the type of the disease: (1) Pestis minor is only rarely fatal, (2) Pestis major has a mortality of fifty to ninety per cent, and (3) Pestis siderans destroys all whom it attacks.

Prognosis depends upon the type of the disease, as has been fully dealt with and explained in previous paragraphs. Until the diagnosis is absolute the prognosis had always best be guarded. In fact at no time is it safe to give a favorable prognosis in bubonic plague.

Anatomical Characters and Pathology. The autopsy does not reveal much that is characteristic. Typical of the disease are the glands and the swelling of periglandular structures. Otherwise there are found merely the evidences of an acute infectious disease, in fact very much such *post-mortem* conditions as exist in typhus fever. The blood is found dark and the right heart usually distended. The brain and its membranes are usually congested. The spleen is very much enlarged and often very soft. The liver is slightly enlarged. The stomach and intestines appear highly congested, if not inflamed, and not rarely show ecchymoses and hemorrhagic spots. Bacilli have been found in the liver, in the spleen in large numbers, in the glands (especially in buboes) in large numbers, and sparingly in pleuritic and abdominal fluid. If the case has been very virulent, and has proven rapidly fatal, bacilli can usually be demonstrated in the blood.

Experimental Pathology. Mice, rats, guinea-pigs, and rabbits are easily infected by the subcutaneous injection of the bacilli, but pigeons behave refractorily. Mice die in twenty-four to seventy-two hours, and guinea-pigs usually withstand the inoculation longer. Rats are easily infected by feeding them on bacilli (or material containing bacilli), but mice are not so readily influenced through the alimentary canal. It is the general rule for rats, mice, and also hogs to suffer from an epidemic of plague before men fall victims. Indeed, rats seem to be the great carriers and disseminators of the poison. The fly also carries and disseminates infection. This point was proven by Yersin, who suc-

ceeded in demonstrating that the dead body of the fly contained bacilli. Injecting the blood of flies into other animals, he produced well-marked symptoms of plague, and when the animal had died he obtained pure cultures of bacilli from its various organs. Autopsies on rats which die during an epidemic show bacilli in the liver, spleen, glands, and blood. Not uncommonly these animals have buboes. When a guinea-pig receives a subcutaneous injection of bacillus bubonic plague a local edema appears at the site of the injection. The neighboring glands begin at once to swell. Within twenty-four hours the animal is very sick, sits about with rough, unkempt hair. Suddenly, in another twenty-four to seventy-two hours, it falls over on its side, has successive tonic and clonic convulsions and dies. The autopsy shows hemorrhagic spots in the abdominal wall and great edema about the point of injection. The neighboring glands are swollen and filled with many bacilli. The liver is large from congestion and contains bacilli. The spleen is very large and contains bacilli in great numbers. Small miliary tubercles are sometimes present in the spleen. Usually there is a small effusion in the pleural cavities and in the belly, and at times, after careful search, bacilli may be found in small numbers in this fluid. There are many bacilli in the blood of the animal.

Culture Virulence. Just as the virulence of bacilli decreases after each transplantation on artificial culture media, so it increases with each transplantation from one living animal to another.

Quarantine. Unless the type of the disease is malignant, and the exposure to it is prolonged so that a large amount of poison is at one time taken in, the incubation of bubonic plague will be from three to five or six days. This being true, it is well to keep suspicious cases under observation for eight to ten days before being thoroughly satisfied that they are safe. All ships should be inspected as they arrive from foreign ports, and held in quarantine the regulation time if there is any suspicion of infection being or having been on board. Experience seems to teach that merchandise from the shores of an infected port is not apt to contain the poison; on the other hand, if it contains any, the virulence of same seems to be retained for many weeks and even for months. Personal articles worn by the sick should be burned. Bedding and furniture had best be burned, but careful disinfection and fumigation may suffice.

Prophylaxis: Hygienic Measures; Personal Cleanliness. Remove all decomposing and foul organic matter and provide good drainage.

Prevent overcrowding and bad ventilation in the living-quarters. Care for the food and clothing of the poorer classes, and avoid debilitating influences of all kinds. To such an extent are the poorer classes the victims of plague that it is often called the "Poor's Pestilence." Streets of towns should be wide, permitting of an abundance of sunshine and air. Warm, moist air, and a residence in a marshy locality predisposes to plague, so these factors should be avoided as well if we hope to prevent the appearance of plague.

Treatment. The treatment must embrace every thing that was said in the foregoing paragraph on prophylaxis, viz., try to keep the general state as near par as we can, and this is best accomplished by attention to all the rules and regulations relative to hygiene and health. At the outset of the disease an emetic has been recommended. The bowels should be opened freely. Tonics, mineral acids, and especially stimulants which are readily diffusible are indicated. Antiseptics are used in large doses by some. Further than this we can only treat symptoms—cold affusions, the wet pack, and spongings for the fever; poultices for the buboes, etc. Sustain the patient; and nutritious diet, easily digested, is demanded for this purpose.

Specific Treatment. Yersin, Calmette, and Borrel are supplying us with an antitoxin, a so-called "Sérum Antipesteaux," which they obtain from the rabbit, the guinea-pig, or the horse, any one of which may be rendered immune by careful experimentation. This antitoxin has as yet seemed to do all that was claimed for it, viz, immunize animals who were about to receive injections of virulent bacilli, and cure others who had received an injection of virulent bacilli, yet were not too far gone to be saved. The theory which Behring applies to the workings of diphtheria antitoxin, and which I quoted in full in a letter addressed to the Practitioner and News from Berlin, last February, is applicable to all antitoxines and will bear brief repetition here. Behring says antitoxin prevents diphtheria by rendering cells immune before they have been poisoned by diphtheria toxin. A cell once poisoned is no longer capable of being rendered immune by antitoxin. Therefore give the antitoxin early and before the bulk of cells in the animal organism have been so changed by diphtheria toxin that they can not longer take up diphtheria antitoxin. This theory applies to Sérum Antipesteaux.

A late issue of the *Le Progrès Medical* makes mention of the fact that Dr. Ortner and Prof. Albrecht, both of Vienna, have been sent by the Academy of Medicine to Bombay to make investigations relative

to plague. The profession all over the world may congratulate themselves that these two men have been selected to do so important a work. Ortnier, who is first assistant to Neusser, is one of the most painstaking and careful clinicians of Europe. Although not hardly thirty years of age, his position among the profession in Vienna and the high esteem in which he is held are enviable. A Bohemian by birth, he combines with that keen far-sightedness characteristic of his people an indomitable energy. Albrecht is equally as well equipped in his specialty, and is too well known by Americans who study medicine (pathology) in Vienna to need any praise from me. His theme is microscopic pathology, and he ranks with Kolisko and Weichselbaum, who teach macroscopic pathology. I repeat what I heard said of him by a colleague: "I have never seen a pathological slide placed before Albrecht that he could not immediately diagnose it."

NOTE.—Since the writing of above I have talked with Mr. Thomas McCloy, a gentleman from Scotland, who is now taking a course in Medicine at the Kentucky School. Mr. McCloy was a missionary to Hong Kong during the epidemic of 1894, while Yersin and Kitasato were making their studies. He states, and feels positive that he is correct in the statement, that Kitasato made public the discovery of the *Bacillus Bubonic Plague* at least three weeks previous to Yersin. I merely mention this as worthy of some consideration, coming as it does from one who was so close to the disease and to those who were working out the specificity of it.

LOUISVILLE.

ANTIPYRINE AND CALOMEL.—I have read with interest the discussion between Dr. Rosenau and Dr. Robinson relative to the toxic effects of antipyrine combined with calomel or when combined with nitrous ether. I have been taught by experience to administer the drugs separately. Twice in my practice I have come near losing a little patient by prescribing antipyrine and ether, though the two were in nowise combined; in fact, two hours elapsed between the administration of the two medicines. The depression was so pronounced that I invited counsel, and together we worked nearly the whole of a night to keep the little sufferer alive, and only strychnine and whisky, hypodermically used, saved the life of one. The other did not fare so badly. Of course we resorted to many expedients besides the two mentioned.

If, as Dr. Rosenau suggests, the toxic effects are manifested chemically only when the drugs are mixed in the mortar or phial, still it is well to have a care while administering them and let as long a time elapse between the giving of them as possible. If given together they may combine in spite of the assimilating power of the stomach, owing to some abnormal condition there.—*A. S. Condon, M. D., in New York Medical Journal.*

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Friday, January 23, 1897, Dr. S. G. Dabney, President, in the chair.

Exhibition of Pathological Specimens. Dr. A. M. Cartledge: This specimen and case are of peculiar interest as throwing light upon the proper method of procedure in a class of cases that are causing much discussion at the present time. It illustrates in a remarkable way some of the difficulties of diagnosis, and the proper method of procedure under such circumstances. This patient was examined first in November last. She had a temperature of 101°. Examination revealed a large mass in the pelvis, greater on the left side; the *cul-de-sac* was almost filled, and on the anterior surface of the uterus could be felt a hard nodulation which suggested fibroid. The history of pain and irregular menstruation also suggested extra-uterine pregnancy. I also said that an inflammatory process in a fibroid tumor might produce such a condition as we had in this case, and that a large abscess in the broad ligament would be in harmony with the physical signs. Such a case would seem favorable for vaginal incision; but I have not gotten my courage up to going into things blindly; I prefer to make an abdominal incision and then do vaginal section—hysterectomy, if I find this is preferable. I found, after making the abdominal incision, a cyst about as large as a child's head, containing a straw-colored fluid. This proved to be a broad ligament cyst; but I could not see, running across its surface, the tube and ovary which are usually found in this situation. Anteriorly there were adhesions to the bladder. To the right every thing was matted together. The uterus was fibroid, as you see. I began to enucleate the broad-ligament cyst, and had almost gotten it clear when it burst, leaving the sac of the cyst in the folds of the broad ligament. I commenced enucleation posteriorly, in the *cul-de-sac*, but had not gone very far when about one half pint of green pus welled up. The left tube was behind the uterus, and if I had gone through the vagina it would have been the first thing encountered, and I would have concluded that with it I had removed all the disease, while above would have been the broad ligament cyst and fibroid uterus. A com-

plete hysterectomy was done. The temperature never went above 99.5°, and the patient left the infirmary on the eighteenth day.

Dr. L. S. McMurtry: The case is one of a great deal of interest. It is one of those cases which go to confirm the point I made in a discussion of this subject before the society some time ago, that the previous education and experience of the operator has much to do with determining the choice of a method. While in Paris, last summer, I saw Segond operate upon such a case with wonderful dexterity; and it would appear to him as extraordinary if he should attempt the operation through the abdominal wall. So that much depends upon the previous training and education of the surgeon. The operator trained by the abdominal method of work is more thorough and is more conscious of his surroundings, and the danger of wounding the bladder is incomparably less to him than through the abdominal and vaginal incision.

Dr. W. C. Dugan: I indorse every thing Dr. Cartledge has said in regard to this matter, and am glad to hear him express himself in favor of opening the abdomen before going in from below. It is the habit with some operators to start in below, open up the vagina, and then go above and complete the operation. I think it is a mistake, where there is a doubt, not to do first an abdominal section. I think the case, as remarked by previous speakers, illustrates the importance of the combined method.

Dr. A. M. Vance: I have one of those miserable cases of catheter in the bladder. Last Friday I was called to see a man, fifty-six years of age, who had had a stricture, and had been treated by internal section followed by sounding. He had been introducing a catheter which was by all odds the rottenest I have ever seen, and had lost about six inches of it. I succeeded in removing from four to five inches from the prostatic urethra, but the eye was left in the bladder. I took him to St. Joseph's Infirmary, did an epicystotomy, and removed the pieces of catheter from the bladder. I endeavored to get primary closure, but after ten days urine is coming through the lower end of the wound. I think the proper thing to do in these cases is to remove the pieces of catheter before they have set up cystitis and lead to formation of stone.

Dr. W. O. Roberts: I of course also believe that these cases should be operated upon immediately. There is one point I would like to make, I do not think in a case like this the bladder should be sutured. This was an old man, doomed to catheter for life, and it seems to me it would

have been well to have left a permanent opening. In suturing there is always danger of a ligature getting into the bladder and forming the nucleus of a stone.

Dr. Cartledge: I agree fully in every thing Dr. Vance has said, and would have acted as he did in this case, but in the future I shall do more operations for stone and for foreign bodies in the bladder through the perineum. Several years ago I removed part of a catheter which was broken off in the bladder of a young man. The attending physician stated that the catheter was only nine inches in length, and after removing seven inches and a half I concluded all must have been removed. Six months later the man returned with a large phosphatic stone, and, doing a perineal section, I removed a nucleus with three and a half inches of catheter.

Dr. Dugan: I of course believe that these cases should be operated upon immediately, but unless there is an enlarged prostate I should go in from below. I think McGuire made a great mistake when he said that suprapubic cystotomy was as easy as opening a boil. Median perineal section is little more dangerous than urethrotomy. I have removed large stones without cutting the prostate, and always do a median section unless there is some special reason.

Dr. Vance: In answer to Dr. Roberts I would say that chroma-tized catgut sutures were used. They were not passed through the mucous membrane. The choice of operation in this case was determined somewhat by the clinical history. He had had an external urethrotomy done; was very fat, and I concluded it would be best to go in from above.

Dr. J. B. Marvin exhibited photographs of a case of infantile cretinism. The child was nineteen years of age, weighs fifty-two pounds, and is thirty-nine inches high. The mother is a German and moved to this country when about seven years of age. After the birth of her second child goitre developed, but this has never troubled her until in recent years; when she contracts cold she has asthmatic attacks. The other children are healthy. The child can not walk alone, but by holding the hand it gets about a little. There is well-marked lumbar curvature. He seems to have no control over the bladder. There are two or three stumpy teeth.

The essay of the evening was read by John Mason Williams, M. D.; subject, "Treatment of Hemorrhoids." [See page 167.]

DISCUSSION.

Dr. William Cheatham: Where we use the cautery in throat and nose work we always fear secondary hemorrhage; and I should think there would be the same danger of hemorrhage with the separation of the slough in the rectum as elsewhere.

Dr. Vance: I was very glad to hear this paper, and would like to try this method of operating. The ligature operation is not all that could be desired. As the essayist has stated, the pain is so great that morphine must be given; morphine causes more or less suppression of urine and retards convalescence by the bladder symptoms it sets up.

Dr. Roberts: I am partial to the ligature, what is known as the Allingham method. I have operated by all the methods given except the carbolic-acid injections. I have had under my care several cases of abscess following these injections by others. As Dr. Cheatham says, the clamp is not devoid of danger from hemorrhage. In one case, using Smith's clamp, I had severe hemorrhage coming on several hours after operation. The ligature seems to me the better operation except in such cases as the essayist mentioned, where the Whitehead operation should be used.

While in Edinburgh, in 1886, I saw Mr. John Chiene do this operation at his clinic in the Edinburgh Infirmary. He said he had just returned from Manchester, and that he would use the technique of Mr. Whitehead, as he had seen him do the operation. The sphincter was divulsed, and then he commenced the operation on the side, splitting up the mucous membrane, and as he dissected he would bring it down and stitch it to the part below as he cut it off. He went around the gut in that way, stitching as he cut.

Dr. Cartledge: We have heard a concise statement of the relative value of the different methods of treating hemorrhoids. There is one criticism I would like to offer on the paper. The doctor leans a little too much toward one operation and does not do some of the other methods justice. Since seeing him use the clamp I am convinced that it is by far the neater operation, and the pain is certainly very slight as compared with the ligature. I am quite in accord with what he says of the Whitehead operation, that it is adapted to those cases associated with more or less prolapse of the bowel or a general varicose condition of the veins. This variety of pile is much more common than we would be led to believe by the advocates of the ligature or clamp,

and I want to make the point that we do not use the Whitehead operation as often as we should; for that particular class of cases to which it is adapted all other operations are unscientific. It is necessary that we should consider how to do this operation with as little loss of blood as possible and to eliminate its disadvantages, such as stricture and flabby and relaxed outlet. In my experience none of these things have followed the operation. The technique outlined by Dr. Roberts is about the worst. The secret is to get down to the sphincter and below the pile bearing area; you are then in almost non-vascular area. The next point is to go high enough. The third is to loosen the bowel well so there will be no traction on the sutures. I put in four and sometimes eight before I lose command of the gut, and have little or no hemorrhage. Now the gut is clamped and stitches passed through the skin and bowel all the way across and the bowel released and clipped off below. Union by first intention is the rule. No other operation for hemorrhoids can be compared with the Whitehead operation if you get a good result.

Dr. J. A. Larrabee: I would like to report a case of pernicious anemia following an operation for hemorrhoids. There was considerable blood lost at the time, and marked shock. It was thought, however, that the patient would recover the lost blood in a few days. Chalybeate preparations were used without any effect upon the anemia, which gradually increased until he seemed to be almost bloodless, and could not raise up in bed without fainting. Previous to the operation he had been a full-blooded man. At one time the urine showed albumin, but this entirely disappeared; there had never been dropsy or anasarca. I have seen two cases of pernicious anemia attributable to shock.

Dr. Vance: I operated upon the case mentioned by Dr. Larrabee for Dr. Baker. The man was about thirty-three years of age. Dr. Baker told me the patient had Bright's disease. Hemorrhage began on the ninth day after operation; the hemorrhage was not arterial, but a general oozing from the ulcers left by separation of the ligatures. I rather considered this a case of Bright's disease, and believe that would explain his death eight months after the operation.

Dr. T. S. Bullock: I had a friend operated upon by the ligature some time ago. It required large doses of opium to render him at all comfortable, and he had to be catheterized every six hours. He went to Colorado, and while there found he was unable to have a satisfactory evacuation. I found, upon his return, a stricture so small that it could

scarcely admit the end of my little finger. I tried gradual dilatation, but could not do much in this way on account of his sensitiveness, and referred him back to the specialist who had operated for the hemorrhoids. This is one of a considerable number of such cases that I have seen.

Dr. Williams (in closing the discussion): There is very little to be said in closing. All writers claim that in using the cautery a cherry-red heat is best, as there will seldom be hemorrhage if this heat is used. It is probable that hemorrhage is more likely to occur if the cautery is not properly used, as for instance with the cautery at white heat; but the danger of bleeding is still further lessened by the previous application of the clamp. The criticisms are elaborations of points I attempted to make in my paper, and are just. In the hospitals at London which I attended I did not see the Whitehead operation done; in fact I have never seen it except in Louisville. Allingham uses the ligature—out of respect to his father, I suppose, as I heard him say the clamp and cautery was a better operation.

A gentleman, speaking to me about hemorrhage following the ligature, said he had operated upon a patient at one of his infirmaries in this city by the ligature method, and the man was put to bed in good condition, but when making rounds that night he noticed the patient was rather pale. Suspecting capillary hemorrhage he tightened the bandage a little to control it. Early the next morning the patient put his hand under him and brought it out covered with blood. The dressing and bedding were saturated with blood. On examination it was found that the hemorrhage was from a small artery which had been severed transversely and had bled all this time and spouted with each pulsation.

SERUM-THERAPY OF PHTHISIS.—Casarini (*Rassagna di Sc. Med.*, 1896,) reports four cases of phthisis in which injections of Maragliano's serum were given every other day. After treatment the moist sounds disappeared in one case, and were much diminished in another; they were never present in the other two cases. Increase of weight occurred in all four. No change in temperature (which was apyretic at the outset) was noted. With regard to bacilli, in two cases they quite disappeared, in one they diminished, and in the third they were never found at all. All the patients felt stronger and better, and had increased appetite. No deleterious results were observed from the action of the serum.—*British Medical Journal*.

Reviews and Bibliography.

A Hand-Book of Pathological Anatomy and Histology. With an Introductory Section on Post-Mortem Examination and the Methods of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia College, New York, and T. MITCHELL PRUDDEN, M. D., Professor of Pathology and Director of Laboratories, Columbia College. Fifth edition. Illustrated by three hundred and sixty-five wood engravings printed in black and colors. 846 pp. New York: William Wood & Co. 1896.

The aims followed in this edition, the fifth of this work, are identical with those which were kept in view in former editions. It has been the intention of the authors to give to students and practitioners of medicine, first, the knowledge needed for the making of autopsies, the preparation of tissues and their preservation for microscopic studies, and to outline the methods of study of the pathogenic neuro-organisms; second, to describe the lesions of the acute infectious diseases, and so far as is known the micro-organisms concerned in their causation, the various phases of degeneration and inflammation, the character of tumors, the special lesions of different parts of the body, of general diseases, of poisoning, and of violent deaths. All of the sections of the book have been revised, and some of them largely rewritten in the light of recent contributions to science. Many new cuts have been added, while the section on the blood has been entirely rewritten for the work by Dr. James Ewing.

This is a work in which the American physician may reasonably take pride, made up as it is largely from the results of the work of our own investigators, and at the same time unsurpassed by any similar work in any country. Many Louisville physicians will be interested in repeated citations from the genial Dr. Simon Flexner, formerly of this city, now of Johns Hopkins University.

D. T. S.

An American Text-Book of Physiology. By HENRY P. BOWDITCH, M. D., JOHN G. CURTIS, M. D., HENRY H. DONALDSON, Ph. D., W. H. HOWELL, M. D., FREDERICK S. LEE, Ph. D., WARREN P. LOMBARD, M. D., GRAHAM LUSK, Ph. D., W. T. PORTER, M. D., EDWARD T. REICHERT, M. D., and HENRY SEWALL, Ph. D., M. D. Edited by WILLIAM H. HOWELL, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. Fully illustrated. 1052 pp. Price, cloth, \$6.00; sheep, \$7.00; morocco, \$9.00. Philadelphia: W. B. Saunders. 1896.

Whoever has any objections to make to the production of all manner of medical books on the co-operative plan let him now speak, though he had just as well hold his peace, for the method has evidently come to stay.

We have here the first text-book of physiology on the collaborative plan, embracing in the list of its contributors a large number of the leading physiologists of the country. In the preface the editor discusses the plan by collaboration, and compares it with that of the single author, in which

he makes out a very fair case. To our mind he leaves out the leading argument for the single-author plan, and that is, that now and then an author appears with high order of scientific imagination, power of clear description, charm of style, and the proper scientific attainments to give a subject a charm and to make its study a pleasure even to the dull. But since Marshall and Dalton gave out their works, reading like novels, a great many dry facts have been discovered in physiology that would load down even a Poe. Such writers as those mentioned only now and then take to writing medical textbooks, and with infinite rarity will twenty of them combine to write one. But the facts are too many and the books have become too large, so that when one man affects to write an exhaustive work he simply edits what a number of students and helpers prepare for him, and we have a collaborative work without the advantages of the open collaboration of a large number of able contributors. Commercially there is of course the advantage of easy introduction to a large number of schools.

The work before us is exhaustive and well written, as it must be coming from the eminent sources it does. The illustrations are full and apt, always illuminating the principles involved, while the publishers have apparently tried to discount even their wonted excellence in the letter-press and general make-up of the work.

D. T. S.

The Medical and Surgical Uses of Electricity. By A. D. ROCKWELL, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, etc. Illustrated with two hundred engravings. New edition. 612 pp. New York: William Wood & Co. 1896.

This work is practically the ninth edition of Beard and Rockwell's treatise; but Dr. Beard having long been dead, and having had no connection with any of the revisions since the second, Dr. Rockwell has very properly put this out in his own name. The book has been thoroughly revised and much of it rewritten. Great additions have also been made to the illustrations. We think it will hardly be gainsaid that this work in its successive editions has kept in the very forefront of electro-therapeutics. The science, as far as science has gone, is here well presented. The faith, as far as faith could be needed, is also in full evidence. In one place we are especially struck with the ready ingenuity of the author. While supporting a contention in regard to causing drugs to permeate the tissues by means of electricity, he instances the fact that trees, etc., are sometimes photographed on the skin of such as are struck by lightning. He finds the explanation of this in the supposition that particles of the trees are taken up by the lightning and burnt into the skin. The explanation is original, but not quite so absurd as many scientists would pretend to regard it. We have ourselves known electricity in numerous cases to transfer metals in large quantities, principally gold, from one man's pocket to another; nor have silver and paper proved very refractory when the current was permitted to devote itself exclusively to this task. True, lightning generally strikes but a single limb or two of a tree, and then makes its way down the trunk, so that a photo-

graph under the circumstances must be a very jagged one. However, the tree in the cases in question may have imagined itself an incurable patient and given up very readily of all its substance. Nevertheless, Rockwell's is still the book in electro-therapy.

D. T. S.

A Manual of Materia Medica and Pharmacology. Comprising all Organic and Inorganic Drugs which are and have been official in the United States Pharmacopeia, together with important allied species and useful synthetics. Especially designed for students in pharmacy as well as for druggists, pharmacists, and physicians. By DAVID M. R. CULBRETH, Ph. G., M. D., Professor of Botany, Materia Medica, and Pharmacology in the Maryland College of Pharmacy. With four hundred and forty-five illustrations. 818 pp. Lea Brothers & Co., Philadelphia and New York. 1896.

In addition to the information ordinarily given in works on materia medica the author has endeavored to make the scope of this sufficiently comprehensive to prepare students for the constant needs of the modern drug business, and to serve as a companion to the average pharmacist in his vocation. It embraces all official drugs included in our pharmacopeia, with their preparations; all drugs official in previous editions of our pharmacopeia; allied species of organic drugs; and independent unofficial synthetic compounds. The etymology and pronunciation of generic, specific, and ordinal names, together with English synonyms and French and German names of each official drug, has been introduced in a most helpful way.

D. T. S.

Manual of Gynecology. By HENRY T. BYFORD, M. D., Professor of Gynecology and Clinical Gynecology in the College of Physicians and Surgeons, Chicago, etc. Containing two hundred and thirty-four illustrations, many of which are original. 488 pp. Price, \$2.50. Philadelphia: P. Blakiston, Son & Co. 1895.

The author announces his aim in this work to be to supply the student with a manual of gynecology complete enough for use in the college course and for the general practitioner who does not contemplate the performance of the more difficult operations in gynecology. The parts most necessary to be learned by the student are put in large type, while the more amplified practical details, such as would burden the student's mind, are put in small type for more leisurely study. It is essentially a teaching work, and one with which we could not easily use terms that would be extravagant in recommending it to the student.

D. T. S.

Clinical Lectures on Diseases of the Nervous System. Delivered at the National Hospital for the Paralyzed and Epileptic, London. By W. R. GOWERS, M. D., F. R. S., Physician to the Hospital; Consulting Physician to University College Hospital, etc. 279 pp. Price, \$2.00. Philadelphia: P. Blakiston, Son & Co. 1895.

This volume contains the lectures delivered by Dr. Gowers at the National Hospital for the Paralyzed and Epileptic, most of them having been published in various English journals. That they bear the name of W. R. Gowers, *facile princeps* of living neurologists, or dead either, for that matter, is really enough for the reviewer to say. The same classic style, the rich vocabulary, the original thought, the surprising suggestiveness, are found here as in every thing else from this great master.

D. T. S.

Abstracts and Selections.

MORBID CHANGES IN THE RETINA.—Mr. Juler showed six macroscopic and microscopic specimens illustrating interesting morbid changes in the retina, and read notes of each case.

Case 1 was one of retinal apoplexy occurring in the left eye of a man, aged thirty-nine. Patient had dilated heart, and some tricuspid and mitral insufficiency. Acute nephritis followed, and was thought to be consecutive to the heart disease. The eye had gradually become blind; it gave only a dull maroon-red reflex on direct ophthalmoscopic examination. The perception of light was fair but projection bad; the tension was slightly raised, and an intraocular growth was suspected. Excision of the globe was advised and refused. A month later symptoms of acute glaucoma with agonizing pain set in. The eye was then removed, and it was found not to be a tumor but a diffused retinal apoplexy.

Case 2 was one of glioma endophytum of the retina. The jelly preparation showed the retina *in situ*, studded with white nodules of the new growth; these were most abundant at the ora serrata, and secondary growths were evident in the vitreous. The microscope showed round-celled growths permeated by thin-walled blood-vessels, starting apparently from the nerve-fiber layer.

Case 3 was a contrast to the above—glioma exophytum. The jelly preparation showed the retina detached, the white nodulated growth extending outward; the microscope showed the growth to be a round-celled sarcoma, starting apparently in the nerve-fiber layer.

Case 4 was one of choroido-retinal atrophy. It illustrated the great value of formalin as a hardening and preservative agent, by which the tissues preserved a lifelike appearance. The jelly preparation showed a groundwork of the fundus paler than normal, but studded with extensive black pigmentation as of coal dust scattered over its surface. Microscopically there were marked atrophic changes in both retina and choroid. The changes were the result of syphilis.

Case 5 was a peculiar retinal growth simulating glioma. It occurred in a child aged three and one half years. A glistening white mass was visible through the pupil, and there was besides at the inner wall of the orbit a nodular mass, which was considered to be either a secondary deposit or a dermoid cyst. It proved to be the latter, and the intraocular neoplasm to be neither a glioma nor a so-called pseudo-glioma. There was complete detachment of the retina, and toward its periphery was a circumscribed spherical nodule about three mm. in diameter, grayish-white in hue. The minute structure of this consisted of a loose spongy network of fibers

resembling mycelium threads. There was no nuclei in the growth except at its periphery, and the author considered it to be the result of an early hemorrhage.

Case 6 was one of choroido-retinal atrophy and ciliary staphyloma, exhibited chiefly to demonstrate the excellent qualities of formalin in preserving the normal appearances of intraocular tissues.—*Henry Juler (abstract) in British Medical Journal.*

UNPAID DOCTORS' BILLS.—The British Medical Protection Society, among other duties, undertakes the collection of overdue fees and accounts of its members. During the past five years applications for the overdue fees of the members have been made, amounting in all to a sum of no less than £46,376 12s. 6d. Of this amount, £25,870 5s. 6d. was collected without the necessity of resorting to legal compulsion. But even the first named immense sum, as the Medical Press and Circular remarks, can not represent probably more than a proportional part of the unpaid indebtedness of the public to the British medical profession, for it is hardly to be supposed that each member of the profession, to whom is owed fees which he can not obtain, is a member of the British Medical Protection Society. In this country physicians have no such means either of having bills collected for them, or arriving at an estimate of their total amount; but there is every reason to suppose, on the basis of individual experience, that the proportion of unpaid bills to the total is as great in America as in Great Britain.—*Boston Medical and Surgical Journal.*

STRONTIUM LACTATE IN BRIGHT'S DISEASE.—According to the *British Medical Journal* for November 7th, Brouowski (*Wiener medicinische Presse*, September 13, 1896,) gives a preliminary account of the results of his clinical and experimental investigations into the action of strontium lactate upon the kidneys. His first experiments were upon rabbits, and consisted in the daily subcutaneous injection of a quantity equal to double the dose in proportion to the body weight. After a month one rabbit had gained seven ounces in weight, and the second ten ounces, while the third had not altered. They were perfectly well in every way, and after they had been killed the internal organs were found to be normal. The drug was then tried in ten cases of kidney disease, three of which were acute parenchymatous nephritis, six mixed nephritis, and one interstitial nephritis. Six doses of fifteen grains were given daily, and well borne. In all cases the volume of the urine increased, and its specific gravity fell. This effect began on the second or third day, and was most marked on the sixth or seventh, and persisted two or three days after the drug had been discontinued. The action was most marked in acute cases, and was much slighter in the chronic forms; the albumin diminished *pari passu* with the increase in the urine. In acute cases it disappeared entirely, but in chronic no diminution was observed. The ethereal sulphates in the urine, by which the amount of intestinal putrefaction may be estimated, were unaf-

fect, and there was no constant change in the pulse or blood pressure. The antiseptic properties of lactate of strontium were tested upon a patient with an intestinal fistula in the cecal region, and found to be extremely slight. A further series of experiments was made upon dogs, solutions of the drug of various strengths being injected intravenously. The blood pressure was at first unaltered, but fell rapidly when the dose was increased; the rapidity of the pulse and respiration was increased; and the volume of urine doubled or tripled. With enormous doses the volume again diminished and the urine was found to contain red and white corpuscles. In this case there were seen *post-mortem* (the animal having been killed by bleeding) hyperemia of the kidneys and hemorrhages into their capsule and parenchyma. The author concludes that strontium lactate is a pure diuretic, and is more valuable than any other remedy in the treatment of acute inflammatory conditions of the kidney.—*New York Medical Journal*.

THE ETIOLOGY AND BACTERIOLOGY OF RINDERPEST.—Rinderpest was recognized as early as 1715; it again made its appearance in 1745, and in 1865 there was a tremendous outbreak, which led to the Royal Commission and the stamping-out order of 1866. Since that time only a small outbreak in 1872 has been recorded, and this was stamped out almost immediately. An epizootic of a most marked type, rinderpest has no permanent footing in this country, and has invariably been introduced from abroad. It is, however, stated to be epizootic in Asiatic Russia, in Hindustan, Persia, China, and even Ceylon, but on this point it is difficult to obtain very accurate information.

From the very first the disease was stamped as contagious, and several attempts have been made to trace the *fons et origo mali*. Murchison maintained that the cattle plague resembled smallpox in all but the cutaneous eruption, but further acquaintance with the disease did not allow of the analogy being carried very far. The disease, however, runs the course of a specific infective fever, the incubation period is short, the symptoms are marked, and the pathological changes are definite.

The contagion was by Burdon Sanderson localized in the blood as well as in the discharges, and in his report to the commissioners appointed to inquire into the origin and nature of the cattle plague he pointed out that the serum separated from the blood of an animal suffering from this disease contained the contagium which could be transmitted by experimental infection of other animals. Beale described cocci; Sanderson and Smart, of Edinburgh, saw them also, and in 1883 Semner brought up the subject again, and described streptococci as the cause of the disease. Whether these cocci are primary or secondary still remains to be seen and proved, but from the whole nature of the disease we should expect to find some "contagium vivum" as its primary cause—a contagium which is easily carried, which may be inoculated by flies, and which it is very difficult to render inert in the countries in which the disease is enzoötic.—*British Medical Journal*.

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"NEC TENUI PENNÂ"

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D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.
JOHN L. HOWARD, M. D., Assistant Editor.

A Journal of Medicine and Surgery, published every other Saturday. Price, \$3 per year, postage paid.

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THE PLAGUE.

Elsewhere in this issue we publish a well-written and significant paper on the history and character of the Bubonic Plague, which since its recent outbreak in Indian has, as in former epidemics, steadily stalked to the front in point of public interest.

It would seem in these days, when State medicine has become a science and sanitary regulations all that the strong arms of the great nations of the world can make them, when the cause of the plague is known and its mode of propagation understood, when its history in the past is a matter of record, and its line of march may and will be contested by every force which wealth and zeal and knowledge can muster against it, that the people of Europe and America need have no fear of its encroachment upon their territory.

Nevertheless, with the knowledge of the fact that the plague is the most deliberate, persistent, and fatal of all the great epidemic diseases, and with the record of frequent visitations from A. D. 80 down to the middle of the present century, wherein in one invasion (1656) 800,000 deaths, and in another (fourteenth century) 25,000,000 were scored, it is not surprising that the inhabitants of Europe should watch the present epidemic with more than common concern. Indeed the dread of the Bubonic Plague in Europe to-day is traditional, and many generations must pass in security before the horrors of Marseilles, Lyons,

London, Constantinople, and many minor cities will no longer be handed down from parent to child.

It is not therefore surprising, nor is it out of keeping with prudence and wisdom, that the governments of England, France, Germany, Austria, Russia, and Turkey have agreed to hold an International Conference for the purpose of considering precautionary measures against the spread into Europe of the plague.

At the same time it might be well for the Health Boards of the United States, whose name is legion, to relax for a while attention to medical education, the elimination of quackery, and the various cattle diseases, and take a view of the possibility of the plague's making a landing upon our shores.

Our quarantine may be of the best, but our coast lines are very long, and the avenues of entrance are on not less than three seas. That the plague may make a landing in America is more than a possibility, nor is it a mathematical certainty that our sanitary authorities would be able to keep it from spreading. Once gaining a foothold, it is not impossible that America might have repeated upon its soil the horrors of the great European visitations.

For, once landed, the plague is good for an epidemic run of six or seven months in whatever district it attacks, while it steadily spreads into all accessible surrounding districts, nor does it seem that any of our boasted modern hygienic and therapeutic measures are now making in India any great headway against it. For notwithstanding the fact that the specific microbe of plague is known, that it succumbs to heat at 140° F., and is the easy victim of all known antiseptics, and notwithstanding the fact that its antitoxin has been found and put in array against it, the returns from Bombay show a death-rate that rivals the record of medieval times. The report is that since its outbreak there have been in the city of Bombay 6,853 cases with 5,447 deaths, and in the entire Bombay Presidency 9,911 cases with 8,006 deaths.

In Marseilles, in 1720, there were 80,000 cases with only 40,000 deaths, but in Toulon, 1721, 20,000 took the disease, and 16,000 died of it. The death-rate in the historical epidemics has been from 50 to 90 per cent, and the present scourge in India bids fair to break the record of the worst in high mortality.

With the facts before our eyes and with the wide awake example of the nations of Europe before us, it would be worse than folly for us to sleep in fancied security.

THE STATE SOCIETY.

A letter from Secretary Bailey calls attention to the very important fact that our State Society will meet this year one month earlier than the accustomed time.

In this event the committees, writers of papers, etc., will, in classic language, "have to get a move on 'em" if the next meeting is to be up to former ones in movement and matter. But, since in medicine and in manners all things are possible to the Kentucky doctor, we have no doubt that the Owensboro meeting will be a crowning success.

Here is the Secretary's important letter. Give it a thoughtful reading.

To the Editor of the American Practitioner and News :

Please to announce in the next issue of your valued paper that the annual session of the Kentucky State Medical Society will convene in the city of Owensboro on May 5th, 6th, and 7th, beginning on Wednesday, the 5th, promptly at 10 o'clock A. M.

The Committee of Arrangements, of which Dr. C. H. Todd is chairman, and to whom communications may be addressed, believes it is best for the interests of the Society that we should meet earlier than usual this season because the American Medical Association will convene the first week in June, and members who desire to be present at Philadelphia on this semi-centennial occasion may have that pleasure, first having paid loyalty to their home-love. All are expected, and it would be inhospitable not to be present in Owensboro at the forty-second annual conclave.

The time is necessarily brief for the arrangement of the programme. Those intending to contribute papers should send titles at their earliest convenience.

Very truly yours,

STEELE BAILEY, M. D.,

Permanent Secretary.

STANFORD, KY., March 1, 1897.

Notes and Queries.

KLEPTOMANIA: THE CASE OF MRS. CASTLE.—As this case presents several points of unusual interest, we think it well to refer to it. The facts are not in dispute. A merchant of wealth from San Francisco, with his wife and child, came to Europe, well provided with money and introductions, both husband and wife bearing the highest reputation for integrity and benevolence. At the end of their holiday, just before the time of their intended return to America, it was discovered that they were in possession of a perfect museum of stolen articles, and the wife was proved to have stolen some of them. The charge against the husband was withdrawn, and the wife pleaded guilty, and was sentenced to three months' imprisonment without hard labor. The sentence has since been revoked by the Home Office, after an examination by Dr. Nicolson and other prison authorities.

The plea of insanity or irresponsibility was raised at the trial. Probably there is no class of cases in which the duty of the expert is more onerous and more often misunderstood than these. The general cry is that there is one law for the rich and another for the poor; or that kleptomania is a rich man's disease. This is true to a great extent, for the simplest definition of the disease is causeless or unreasonable stealing, and the chief evidence of its being unreasonable is that the thief is rich and does not require the articles stolen. Mrs. Castle was shown by the medical witnesses to have had uterine trouble, which dated back from her confinement, and there was evidence that she had suffered more or less ever since, and had been very hysterical.

Dr. Grigg gave evidence that her uterus was in a very abnormal condition, and was in such a state as is often met with in hysterical and unstable nervous states. Dr. Savage, who examined her in the prison during the remand, gave evidence that she was very hysterical and nervous, while the strongest witness of all was the prison surgeon, Dr. Scott, who had her constantly under his observation. The evidence of nervous instability was carried back by Dr. Gilbert to some time before the criminal acts. Thus there was a strong unbroken chain of testimony that the woman was abnormal as far as her nervous state was concerned. It has been pointed out both by prison surgeons such as Dr. J. Baker and by alienists that such people provide most of the kleptomaniacs.

It is now well recognized that with hysteria there may be an endless and incalculable series of strange and purposeless acts, and among these theft is not uncommon; young women, women at the menopause, and those suffering from menstrual irregularities are untrustworthy in many ways.

Mrs. Castle then was of the class we have described. The nature of the thefts too is important, for it is known that in many cases there is an insane habit of collecting similar objects, and, as in this case, making no use of them. In this instance there were innumerable eye glasses, opera glasses, and fur tippets, besides odds and ends of great variety. The most unreasonable things taken were those of little value, such as plated toast racks with the hotel mark on them, as well as towels of no real value.

Taking, then, the nervous symptoms in the woman, associated as they were with uterine troubles, and also the character of the articles stolen, we believe justice has been done in allowing her to go free, notwithstanding the apparent cunning shown in the stealing.—*British Medical Journal*.

SPARTEINE SULPHATE IN SURGICAL ANESTHESIA.—In the *Therapeutic Gazette* for November Dr. Gilbert G. Cottam states that he has employed sparteine sulphate in a number of surgical cases with very positive results, the beneficial effect of the drug being clearly shown in nearly every instance.

The effect of the sparteine on the heart was first noticed by Laborde, whose observations were subsequently confirmed by Griffe, Garaud, and Masius. Germain Sée first drew attention to its great value in cardiac affections; and finally, in America by Cheves Bevill, in France by P. Langlois and Maurange, the remarkable properties of the sulphate as a cardiac stimulant in chloroform narcosis were observed and described.

Bevill (*Therapeutic Gazette*, vol. xix, p. 71,) uses it in doses of a fifth of a grain by the mouth, given thirty minutes before the chloroform is administered. He describes two cases in which the patients did well throughout prolonged anesthesia.

Langlois and Maurange (*Semaine médicale*, August, 1894,) give from 0.5 to 0.6 of a grain of sparteine sulphate and three twentieths of morphine hypodermically, fifteen minutes before the commencement of anesthesia. They have done this a hundred and twenty times on the human subject. In many of these cases the patients suffered from heart disease, or had to undergo prolonged operations, such as laparotomy, kelotomy, and reduction of dislocations. In all of them the heart-beats continued full and perfectly regular.

The author's mode of procedure is to inject hypodermically a tenth of a grain of sparteine sulphate ten minutes before the anesthesia is begun. Then, if the operation is protracted, a fifteenth of a grain is injected during its progress. These doses have been found ample to secure the desired effect, although they are much smaller than is generally considered necessary.

Dr. Cottam gives an account of seven cases to illustrate the points enumerated. Sparteine sulphate was used in every instance in the manner just described, and the patients themselves, from various causes, were such as would be peculiarly susceptible to the depressing influence of chloroform, and hence admirably adapted to demonstrate the properties of sparteine.

A study of these cases and many others of a minor nature, he says, has caused him to form these conclusions:

1. That in sparteine sulphate, administered hypodermically before the beginning of anesthesia, in the dose of a tenth of a grain, repeated according to the nature of the operation and the condition of the patient, we have a safe, efficient, and prompt heart stimulant in chloroform narcosis.
2. That it is not necessary either to combine it with morphine or to use it in larger doses than those specified.
3. That, other things being equal, there is less shock and there is prompter reaction with its use.—*New York Medical Journal*.

A NOTE ON PICRIC ACID IN THE TREATMENT OF SUPERFICIAL BURNS AND SCALDS.—The treatment of superficial burns and scalds has long seemed to be most unsatisfactory, for these injuries are attended with an unnecessary amount of inflammation, while the act of renewing the dressings is unduly painful. From time to time I have tried various methods of treatment, and I have come to the conclusion that the picric acid treatment is by far the simplest and the most satisfactory. The method is well known in France, where it has been extensively used by Professor Thiery, while Dr. Filleul and Dr. Papazoglou have done their best to disseminate a knowledge of its value. I do not therefore claim the least merit for myself, but I find that so few practitioners know of it that it is perhaps worth while to draw attention to it in England.

The solution of picric acid is made by dissolving a dram and a half of picric acid in three ounces of alcohol, which is then diluted with two pints of distilled water; or, more accurately, Picric acid, 5 g.; alcohol, 80 g.—dissolve; add 1,000 g. of distilled water. This is a saturated solution of picric acid.

The clothing over the injured part should be gently removed, and the burnt or scalded portion should be cleaned as thoroughly as possible with a piece of absorbent cotton wool soaked in the lotion. Blisters should be pricked and the serum should be allowed to escape, care being taken not to destroy the epithelial surfaces. Strips of sterilized gauze are then soaked in the solution of picric acid, and are so applied as to cover the whole of the injured surface. A thin layer of absorbent cotton wool is put over the gauze, and the dressing is kept in place by a light linen bandage. The moist dressing soon dries, and it may be left in place for three or four days. It must then be changed, the gauze being thoroughly well moistened with the picric acid solution, for it adheres very closely to the skin. The second dressing is applied in exactly the same manner as the first, and it may be left on for a week.

The great advantages of this method of treatment are: First, that the picric acid seems to deaden the sense of pain, and, secondly, that it limits the tendency to suppuration, for it coagulates the albuminous exudations, and healing takes place under a scab consisting of epithelial cells hardened

by picric acid. A smooth and supple cicatrix remains, which is as much superior to the ordinary scar from a burn as our present surgical scar is superior to that obtained by our predecessors, who allowed their wounds to granulate.

I have used this method for more than a year in a hospital practice, both among out-patients and in-patients, and I have every reason to be thoroughly satisfied with the results I have obtained. It is not an ideal method, for it stains the clothes and discolours the hands of the surgeon, but it is a great improvement upon any thing else I know of.—*Dr. D'Arcy Power, in British Medical Journal.*

FOUND DRUNK.—When the police in Denmark find any one in the streets drunk and incapable they take him in a cab to the station, where he gets sober under a surgeon's care. On recovering sobriety the police take him home. A bill for the services of the cabman, the surgeon, and the police agents for special duty is then presented to the host of the establishment where the patient took his last drink. In Turkey, if a Turk falls down in the street while intoxicated and is arrested, he is sentenced to the bastinado, which punishment is repeated as far as the third offense. After the third bastinadoing he is considered to be incorrigible, and is called "Imperial," or "privileged" drunkard. If arrested after that he has only to give his name and address, and state that he is a "privileged" drunkard, when he is released and conducted home, the bill for these kindnesses being rendered to him for payment next day.—*Ibid.*

FORMALIN AN APPROXIMATE SPECIFIC FOR RINGWORM.—An interesting editorial note has appeared in Guy's Hospital Gazette calling attention to a recent paper by Mr. Alfred Salter, on the treatment of ringworm by formic aldehyde, or formalin. This treatment is now so well known in Guy's and has had such a conspicuous success that it should be part of the ordinary practice of every old Guy's man. There seems no doubt that it is the almost specific treatment for the disease, especially in obstinate and hitherto incurable cases. And yet this discovery arose from the annoying fact that the inventor's cultivations of the ringworm microbe were all killed one night through his having left the stopper out of the formalin bottle.—*Boston Medical and Surgical Journal.*

AN ENORMOUS FIBROID TUMOR.—At the November meeting of the Section of Gynecology of the College of Physicians of Philadelphia, Dr. C. B. Penrose reported an operation for the removal of an edematous fibroid tumor of the uterus, weighing eighty-seven pounds. The patient died four hours after the operation, probably from sudden relief from pressure upon the vascular system.—*American Journal of Obstetrics.*

MORTALITY FROM PLAGUE AT BOMBAY.—The latest report from Bombay places the total mortality up to date, from plague in that city, at 10,000.

Special Notices.

LARYNGEAL OR WINTER COUGHS.—Walter M. Fleming, A. M., M. D., Examiner in Lunacy, Superior Court, City of New York; Physician to Actor's Fund of America, etc., in giving his experience in the treatment of the above and allied disturbances, in *The Journal of Nervous and Mental Disease*, submits the following:

"In acute attacks of laryngeal or winter cough, tickling and irritability of larynx, faith in antikamnia and codeine tablets will be well founded. If the irritation or spasm prevails at night the patient should take a five-grain tablet an hour before retiring and repeat hourly until allayed. This will be found almost invariably a sovereign remedy. After taking the second or third tablet the cough is usually under control, at least for that paroxysm and for the night. Should the irritation prevail morning or mid-day, the same course of administration should be observed until subdued. In neuroses, neurasthenia, hemicrania, hysteria, neuralgia, and in short the multitude of nervous ailments, I doubt if there is another remedial agent in therapeutics as reliable, serviceable, and satisfactory; and this, without establishing an exaction, requirement or habit in the system like morphine.

Finally, in indigestion, gastritis, pyrosis, nausea, vomiting, intestinal and mesenteric disorders and the various diarrheas, the therapeutic value of antikamnia and codeine is not debatable. The antipyretic, analgesic, and antiseptic properties are incontrovertible, and therefore eminently qualified to correct the obstinate disorders of the alimentary canal."

AMENORRHEA.—Dr. C. C. Alernathy writes: "I placed sample bottle of Dioiviburnia (Dios) in the hands of a young lady who had been suffering from amenorrhea for six months, with instructions to use it and report result. At the expiration of two months she wrote me, "You can safely recommend Dioiviburnia—it has entirely relieved me." Encouraged by this gratifying result I procured through our druggist a dozen bottles, and have used them all and more in the treatment of dysmenorrhea, menorrhagia, and leucorrhea, in all of which there is generally congestion of the womb and ovaries, and I am pleased to say that it has acted well in every case. I shall continue to use it."

PEPSIN is undoubtedly one of the most valuable digestive agents of our *Materia Medica*, PROVIDED A GOOD ARTICLE IS USED. ROBINSON'S LIME JUICE AND PEPSIN, AND AROM. FLUID PEPSIN (see advertisement, this number) we can recommend as possessing merit of high order.

The fact that the manufacturers of these palatable preparations use the purest and best Pepsin, and that every lot made by them is carefully TESTED, before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.

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THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNÂ.*"

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No. 6.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—*RUSKIN.*

Original Articles.

THE BUBONIC PLAGUE.*

BY ARTHUR W. SMYTH, M. A.

Undergraduate of the Medical Department of the University of Louisville.

Owing to the curiosity aroused by the latest outbreak of this dreaded disease in the Orient, I thought it would be of interest to present to you concisely all the data obtainable on the subject, and to give you a brief history and description of the malady which has made such wide ravages and caused such an enormous destruction of life during the past fourteen or more centuries. It is an acute, specific, febrile, severely contagious disease, endemic in certain oriental countries, and at times epidemic, and characterized by extreme debility and the formation of buboes, carbuncles, and petechiæ.

It is known by a variety of names, as the Pest, Glandular Pest, Oriental Plague, Black Death, and many others needless to mention. First mention of it was made by Rufus, of Ephesus, who spoke of its existence in Egypt, Africa, and Syria prior to the Christian era. The next authentic account of it is given by Procopius, who describes the Justinian Plague of 542 A. D., which was so severe that in one day it carried off ten thousand people in Constantinople, and before the end of the sixth century had depleted the population of the Eastern Empire by one half. Then it established a foothold in Europe for the first time, and held sway there for more than one thousand years. It reached London in 1665, and did not expend its fury until seventy

* Read before the Medical Society of the University of Louisville, February 11, 1897.

thousand souls had perished. Also in this century many epidemics swept over Russia, Egypt, Italy, Germany, France, Turkey, Spain, Switzerland, Holland, and Belgium.

In the early part of the eighteenth century it appeared in Turkey, Egypt, and Hungary, and swept through Poland and Russia to Norway and Sweden, thence along the Baltic Sea to the Low Countries; but the most serious outbreak of this period was in Marseilles, carried thither in 1720 by a merchant ship from Alexandria, and before it ceased its work of devastation over sixty thousand persons had succumbed.

During the present century it has appeared in Egypt, in both Turkey in Europe and in Asia, Western China, Persia, Northern Africa, Syria, Italy, Germany, Russia, and this, the latest, in Bombay.

With regard to the etiology of the affection may be mentioned first, as predisposing to its development, poverty, and all that that term comprehends, as overcrowding, ill-ventilation, improper and insufficient diet; in one word, disregard for all sanitary laws, and also in connection with this depressing influences, as intense anxiety, fear, and the like. The location of the dwellings must be taken into consideration, as it happens more often in marshy districts, as at the mouths of rivers. The season of the year has but very little influence on it, but either extreme of temperature seems to inhibit it. Males and females are equally susceptible, but it is rarely contracted after fifty years of age. A most peculiar and interesting fact is that those that handled oils and fats were comparatively immune, as also attendants at baths, though in a less degree. One attack does not necessarily confer immunity, but it lessens the intensity of a succeeding one.

The exciting cause is a specific organism discovered by Yersin and Kitasato during the Hong Kong epidemic in 1894. That this germ possesses a direct causal relation to the disease in question is shown by the facts that it is always found in blood, buboes, and internal organs of those having perished from it; that it is not found in any other infectious disease, and that with a pure culture it is possible by inoculation in the lower animals to produce the characteristic identical symptoms. Kitasato describes it as a short rod with rounded ends, somewhat resembling the bacillus of chicken cholera, and possessing a capsule. It stains in the aniline dyes, though less deeply in the middle than at the ends, and is motile. It decolorizes by the Gram method of staining according to Yersin. It grows abundantly on blood serum without liquefaction, and after twenty-four to forty-eight hours at the

body temperature the growth appears moist and of a yellowish-gray color; in agar-agar it presents a bluish translucence; and on glycerin-agar, which is more favorable for its growth, the colonies are grayish and white and glass-like when young, but when older the center becomes thicker and more opaque. The growth in bouillon is differently described by these two great observers: Kitasato describes it as producing a cloud, while Yersin compares it with the growth of the streptococcus erysipelatis in forming small granules which adhere to the sides and settle to the bottom of the test tube. It produces a fine, dust-like growth in stab cultures. It does not grow on the potato at ordinary temperature, but after forty-eight hours at 37.5° C. a gray growth with a very dry surface was observed. It is claimed by Kitasato that it does not multiply by sporulation.

The most favorable temperature for its growth is between 36° and 39° C. Its mode of entrance into the system is by the intestinal and respiratory tracts and through external wounds. Carriers of the contagion are the excreta, all clothing, bedding, etc., that come in contact with the patient, and the dead bodies; however, it is incapable of being transmitted to any great distance by the air, and water is decidedly antagonistic to it. The contagion itself will exist under favorable conditions for an indefinite period, as shown by the fact that the opening of graves of victims of this malady, even many years afterward, is signalized by its reappearance, and Trincavelli relates the death of a servant from the same disease contracted by handling ropes used in the interment of plague patients twenty years before.

As an aid to the description of the symptoms the disease has been divided into four stages: That of invasion, stage of intense fever, fully developed stage with localizations, and the period of convalescence.

In the fulminant form, pestis siderans, there is profound disturbance of the nervous centers followed by convulsions which merge into coma and a state of collapse, petechiæ and vibices speedily form, and the patient perishes as though struck by a thunderbolt before the characteristic buboes have time to develop.

Another variety is the larval or abortive, pestis minor, which is observed chiefly toward the close of an epidemic; all the essential symptoms mentioned below are present, but in greatly diminished intensity.

The remaining type, the grave or ordinary pestis major, is the one frequently met with, and presents the following symptoms: Its mode

of access is quite variable, sometimes it begins with a convulsive tremor or a prolonged shaking, which may last from six hours to three days; there is, however, no fever nor sense of chilliness; again, it sets in with great confusion of mind, a dazed condition exists, and the patient rushes wildly about making frantic gesticulations and outcries; in the more typical cases, however, the period of invasion is marked by a feeling of lassitude associated with pains in the loins and extremities, extreme mental and physical debility, headache, or a sense of fullness and throbbing in the head, perhaps vertigo. The expression is dull, stupid, face pale, eyes languid, gait feeble, staggering, and the condition has been likened to that of a drunken man. There may be slight fever, sometimes nausea and vomiting, and occasionally diarrhea; this may last from a few hours to a day or two, or death may occur from collapse.

The second stage is ushered in by a decided rigor followed by intense fever, sometimes the temperature reaching as high as 107.5° F.; the pulse becomes very rapid and feeble, and all the symptoms of the preceding stage are intensified. In addition the conjunctivæ become congested, the pupils dilated; there is a sense of burning, inward heat and unbearable thirst; loss of hearing, vomiting, which is often persistent, and the tongue becomes covered with a grayish-white, pasty coating; the urine is bloody and scanty, or may be suppressed; bleeding has been observed from the nose, lungs, bowels and vagina. The dullness may deepen to stupor or delirium, and the typhoid state supervene with slight enlargement of the superficial lymphatic glands. Death may now occur from convulsions and coma, or this stage terminate by a sharp fall of the temperature, sometimes to 93.2° F.; this is accompanied by copious, highly odoriferous perspiration, a fall in the pulse-rate, and the mind clears up.

In the next stage the characteristic lesions appear, the lymphatic glands enlarge very rapidly, varying in size from a kernel to an orange; this may go on to suppuration, and an ichorous pus be discharged, followed by more or less ulcerative destruction of the surrounding tissues. The buboes are very rarely symmetrical, more often unilateral, and that on the right side; they are inguinal in about fifty per cent of the cases, axillary in thirty-five per cent, and occur less frequently in other parts of the body. Carbuncles occur in a certain proportion of cases, usually on the lower extremities, buttocks, or back of the neck. In fatal cases petechiæ appear and may occupy extensive areas of the

body, giving to the skin that dark, livid hue which originated the name of "Black Death." Vibices and extensive ecchymoses may occur shortly before dissolution.

If the patient does not succumb to pyemia, convalescence usually sets in in between six and ten days, and is frequently interrupted by relapse.

Examination of the body after death usually finds it well nourished, as the disease is fatal before emaciation can occur. The heart is flabby, and the right side distended with fluid blood; small extravasations exist beneath the pleura; the spleen is softened and may be two or three times the normal size; the liver is slightly enlarged but congested; kidneys are hyperemic, sometimes with extravasations of blood present; the stomach and intestinal canal show hemorrhage, inflammation, and sometimes ulceration; the bronchial, mediastinal, mesenteric, and lumbar glands as well as the superficial are enlarged, and the inflammation often more or less includes the surrounding cellular tissue.

The complications are chiefly hemorrhage and pulmonary congestion, and these are followed by protracted ulceration, boils, superficial or deep abscesses, catarrhal pneumonia, pertussis, or a chronic condition of mental debility.

The duration of an attack varies from twelve hours to three weeks; an epidemic may last months or years, but the virus steadily undergoes attenuation, and the cases are much milder toward the close.

It is possible to confound the disease with typhus fever, malignant pustule, and pernicious intermittent fever, but the great hebetude, collapse, high fever, appearance of buboes, carbuncles, and petechiæ, collectively present a clinical picture witnessed in no other disease.

The appearance of buboes in the neck, petechiæ on the skin, or a muttering delirium, suppression of the urine, or severe diarrhea, prognosticate a fatal termination. Suppuration of the buboes is considered a good sign; carbuncles which show limitation are not unfavorable, and the occurrence of copious sweating with remission of the fever, return of the natural appearance, and the cessation of nervous symptoms are favorable indications.

The treatment may be divided into prophylactic and curative. The preventive measures consist in removing the predisposing causes mentioned above, improving the general hygienic condition, providing plenty of food of the proper quality, completely disinfecting all excreta and all clothing and other articles that come in contact with the patient.

Heretofore all efforts toward maintaining the strictest quarantine laws have been met with success in preventing its spread, and should therefore be carried out to the utmost. The curative treatment has previously amounted to almost nil, comprising good ventilation, cleanliness, liquid diet and cool drinks, attention to the prominent symptoms, and by some free inunction with oil from the beginning; but as a result of the successful efforts of Kitasato in immunizing a horse with pure cultures of the bacilli and the efficacy of the antitoxic serum thus obtained in cutting short the disease in rabbits, guinea-pigs, and mice, as also in a few human beings where it has been tried, all give promise of a specific remedy that will rob the plague of its terrors, and add another gem to the diadem of scientific triumphs which will crown this nineteenth century.

LOUISVILLE.

TWO POINTS CONCERNING THE CHLOROFORM-ETHER CONTROVERSY.*

BY AUGUST SCHACHNER, M. D., PH. G.

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In the short time allotted an essayist at a society meeting it would be impossible to present this subject in its entirety, much less to discuss it from such a broad standpoint, and in view of this fact I present for consideration but two points in connection with the subject. These represent two of the four that were selected by Dr. Wood in presenting this subject for the consideration of the "Tenth International Medical Congress" in 1890, and these four represent the essence of the entire subject. It is to these points that I beg those who will favor us by discussing the subject to direct their attention, since a discussion directed to these salient points will doubtless bear fruit, whereas a discussion unlimited as to any particular feature would most likely add only confusion to the already somewhat unsettled subject.

This paper lays no claim to any originality, and in it I freely confess that I have liberally drawn from the opinions and papers accessible to the writer, the object being to offer for discussion a condensation of the best views which have been expressed upon this subject.

In the preface of an article upon the same subject by a distinguished writer occurs a criticism which covers to a large extent an idea quite

* Read before the Louisville Clinical Society, March 2, 1897. For discussion see page 216.

prevalent in the minds of many of those interested in this subject, namely:

"It is true that recent, and perhaps even the older, medical literature is flushed with the assertions of various surgeons that not only have they given anesthetics many hundreds of thousands of times without accident, but also that these results have been due to their own individual skill, and that if their methods of administration were adhered to all the danger of anesthesia would be overcome.

"There are few things more tiresome in medical literature than these clamorous outcries of conceit and vanity. The surgeon who claims that in his hands anesthetics are free from danger, forgetful that death from anesthesia has occurred in the practice of Simpson, Symes, Gross, Agnew, Billroth, and almost the whole of the list of the world's greatest surgeons, causes in us some amusement and still more disgust."

Another error quite common with many is that of underestimating the importance of the care and knowledge necessary for the safe and proper administration of an anesthetic. Two of the four points emphasized by Dr. Wood are:

"1. The method in which these two drugs kill, both in man and the lower animals; that is, whether they destroy life through the circulation or the respiration.

"2. The comparative fatality attending the use of these two agents, and the reasons for the difference."

Prior to the action of the Hyderabad Commission the generally accepted belief was, that chloroform produced death by a paralyzation of the heart. The labors of this commission, which were both exhaustive and painstaking, have challenged the correctness of this generally accepted belief.

This commission, headed by Dr. Lauder Brunton, of London, made in all some six hundred experiments. Four hundred and thirty experiments were made upon dogs, monkeys, horses, and goats.

As the result of these experiments, this commission decided that chloroform has no power of paralyzing the heart.

Aside from this very important conclusion this commission formulated other deductions bearing upon this very important controversy.

In carrying out the experiments "the anesthetic was administered in large and small quantities, with inhalers and without them, even by forcing it into the trachea by bellows. Subjects were held in perpendicular and horizontal positions, and in glass and wooden boxes. The

conditions were modified by hypodermic injections of morphine, strychnine, cocaine, and atropine, alone and in combination; in other cases the heart and other organs had been rendered fatty by a course of phosphorus, and in still other cases the subjects were affected with cardiac disease. The condition of the digestive apparatus was also varied, some of the subjects having been deprived of food for some time, and others having partaken of starchy or fatty food or of meat; the administration of Liebig's extract, coffee, and ammonia previous to giving the chloroform also modified the conditions in certain cases."

"These experiments proved to the satisfaction of the commission that chloroform, when given continuously by any means which insures its free dilution with air, causes a gradual fall in the mean blood-pressure, provided the animal's respiration is not impeded in any way, and it continues to breathe quietly without struggling or involuntary holding of the breath. Struggling, independently of any change in the respiratory rhythm, appears generally to raise the blood-pressure. But when struggling is accompanied, as it often is, by acceleration of the respiration and pulse, especially if the respiration is deep and gasping, it leads to a more rapid inhalation of chloroform, and consequently to a more rapid fall of blood-pressure and a greater after-fall."

Referring to the action of chloroform upon a fatty heart, the commission expresses itself as follows:

"The truth about the fatty heart appears to be that chloroform *per se* in no way endangers such a heart, but on the contrary, by lowering the blood-pressure, lessens the work that the heart has to perform, which is a positive advantage. But the mere inhalation of chloroform is only a part of the process of the administration in practice. A patient with an extremely fatty heart may die from the mere exertion of getting upon the operating table, just as he may die in mounting the steps in front of his own hall door, or from fright at the mere idea of taking chloroform or undergoing an operation, or during his involuntary struggles."

"In the experiments with ether it was found impossible to produce efficient anesthesia unless some form of inhaler was used which would thoroughly exclude the air. As soon as the air is rigidly excluded the blood-pressure commences to fall gradually, exactly in the same way as with chloroform, and with the same succession of phenomena, viz., first anesthesia, then cessation of respiration, then of the heart movements, and finally death."

After the formulation of some fourteen rules governing the administration of chloroform, which rules differ practically in nowise from those recognized precautions laid down in every well-written work upon chloroformization, the commission expresses itself in the following emphatic terms:

"The commission has no doubt whatever that, if the above rules be followed, chloroform may be given in any case requiring an operation with perfect ease and absolute safety, so as to do good without the risk of evil."

"The essential experiments of the commission have left the chloroform question in the following condition: It was not found possible to directly paralyze or affect the heart by chloroform in some six hundred administrations. Death from chloroform is due apparently to paralysis of the vaso-motor and respiratory centers—probably one or both of these may be affected. When death occurs it is the result of an overdose of the drug."

There is no doubt that on the whole the labors of this commission have rendered valuable assistance toward the settlement of this controversy, but, as for changing the very commonly accepted belief that chloroform is a paralyzant of the heart, we must agree with others that upon this point the commission has utterly failed in disproving this belief that chloroform is a paralyzant of the heart, nor do the clinical statistics gathered by the same commission harmonize with their experimental results, as will be seen from the following extract:

"It (Lancet Commission) has analyzed and tabulated the reports of 384 deaths during chloroformization, and has shown that out of this number in 227 cases the pulse failed entirely before the cessation of respiration, that seventy-seven times cardiac and respiratory action ceased simultaneously, and that only in eighty cases did respiration stop before the heart."

While not attempting in any sense to deny the value of experimental research, we can not afford to close our eyes to the hint which Dr. Wood has given us while writing upon this same subject, namely:

"It ought to be acknowledged as a fundamental axiom that no amount of experiments can overthrow a clinical fact. No amount of failure to purge a dog by elaterium proves that elaterium does not purge man, and certainly the experimental investigations and the clinical investigations of this same commission stand in direct variance to one another."

It is safe to say that the experimental results obtained upon this side of the Atlantic upon this subject alone, as well as the experience gained by experimenters both medical and surgical, do not correspond with the experimental results presented by the commission.

I feel safe that I bespeak the experience of my co-workers in experimental work when I say that chloroform is extremely fatal to the American dog, if not to the Pariah dog.

Mr. Alexander Wilson, in *The Medical Chronicle* (Manchester), April, 1890, in criticising the Hyderabad Commission remarks "that there may be several objections taken to the unreserved application to man of the conclusions of the experiments of the Hyderabad Commission. First, there is the difference which may exist in the action of chloroform on the heart of man and of animals. There is the possibility that the habits of life, the taking of stimulants and narcotics, especially the habitual use of drugs like tobacco—for the condition of the vagus center is shown to be of great importance in relation to chloroform narcosis—may have some effect, if not in altering the behavior of the heart muscle or its innervation, at least in modifying that chain of events upon which depends the absorption and distribution of the chloroform by the blood."

"Among other points of difference between man and the animals experimented on are the relation of the vital capacity to the size of the animal, and the interference with complete filling of its lungs, resulting from holding of the animal. It has often been shown that the suddenly fatal cases are rare in human subjects in which there is any impediment to the free expansion of the chest—*e. g.*, Clover has pointed out that a phthisical patient is less likely to take a fatal dose of chloroform than one with healthy lungs, because his chloroform absorbing capacity is diminished. Again, it has been noted that few patients die suddenly from chloroform when it is inhaled lying on the side; also few, if any, sudden deaths are reported in case of ovarian tumors. The explanation of these cases is that the interference with full expansion of the lungs by the position or the presence of the tumor prevents the lungs taking in the necessary fatal dose. On the other hand, the greater number of the suddenly fatal cases occur in people with healthy chests and large vital capacity, *e. g.*, in reducing dislocations of the shoulder, and in minor operations, such as teeth extraction, especially in those in which the patient, being in the natural upright position, can give the respiratory muscles full play and completely fill the chest."

"In chloroform accidents in man of the very sudden variety, considered to be due to cardiac syncope, a certain set of conditions are present which are difficult to obtain in animals. The subject is generally young or middle aged, with an expansile chest, the chloroform is willingly inhaled, quietly at first until semi-unconsciousness is produced, when the fauces and glottis are insensitive, then, during struggling, with or without holding the breath, the patient, often in an upright or semi-upright position, and having his arms fixed by the assistants, which gives his respiratory muscles good purchase, gets one or two deep inspirations at the greatest advantage, and so obtains the maximum amount of chloroform."

"There is the desire to get under the influence of the drug, the voluntary inhalation followed by the still steady conscious anxiety to inhale more, and then the involuntary deep inspiration in the natural position in which a deep inspiration can be best taken. All these are conditions difficult to obtain in experiments on animals, and it is only under such conditions that the supposed cardiac paralysis has been produced in man."

"For ordinary practice the several conditions giving a fatal result from cardiac syncope are combined about once in every two or three thousand administrations. Because the commission did not obtain it in some six hundred attempts they conclude that it can not exist. This is scarcely reasonable, especially as the bulk of their work was not upon the lines which promised the nearest result, viz., those of deep inspiration after semi-asphyxia."

"It would be interesting to know the degree of action exhibited by the heart after cessation of the respiration. Was the power of propelling blood retained? If the action consisted only of muscular tremors, it would be of little value and hardly what is understood by the action of the heart."

Dr. Wood, in commenting upon the results, expresses himself as follows:

"Whatever the results of experimentation with anesthetics upon the lower animals may be, it seems to me absurd for any one to claim that in man chloroform does not frequently produce death by an action upon the heart. When chloroform is given to the lower animals there is always, after the first half minute of the inhalation, a progressive lowering of the arterial pressure. Up to this point there seems to be no discordancy, and in the controversy which has raged for the last few

years on the subject we get one firm indisputable point—namely, that ether is a stimulant and chloroform a depressant to the circulation. For many years all observers have agreed that chloroform directly lowers the arterial pressure, but great has been and still is the dispute as to the immediate mechanism of the fall which the drug produces. Does the pressure come down through the widening of the blood paths by a centric or vaso-motor paralysis, or is the fall in part or altogether due to an action upon the heart? In other words, is chloroform a vaso-motor depressant simply, or is it also a cardiac depressant?"

Continuing, further on he remarks:

"The drift of the present evidence is to show that chloroform in the earliest stages of its action stimulates rather than depresses the vaso-motor centers. On the heart itself chloroform undoubtedly exerts a steady, depressing influence."

"Putting all the evidence together, it seems to me to have been completely demonstrated by physiologists—first, that chloroform is a direct depressant and paralyzant to the heart muscle or its contained ganglia; second, that the early fall of blood-pressure which occurs in chloroformization is in great part, if not altogether, due to this direct depression of the heart."

"It is firmly established by the coinciding results of very many experiments performed by various observers that during etherization there is usually a pronounced rise in the arterial pressure, which is commonly maintained even through a prolonged narcosis, and may continue after manifest failure of respiration. Sooner or later, if the inhalation be continued, the rise of arterial pressure is followed by a fall, which may progressively increase until the manometrical needle reaches almost zero."

"The clinical and physiological facts which have thus far been brought forward in this paper would seem in themselves and in their accordance sufficient to prove that fatal syncope by direct effect of chloroform upon the heart is the common cause of chloroform death, and that ether is the safer remedy, because it usually primarily stimulates the heart."

"2. The comparative fatality attending the use of these two agents, and the reasons for the difference."

"It is not difficult to understand why statistical reports upon this subject should be noted for an absence of uniform harmony. There is, however, an approach in the direction of harmony attending these

statistics in common, as will be seen by comparison of the following figures." "Of statistics in which it has been attempted to avoid error by mass, the most recent and probably the best is the table prepared by Dr. Gould, based upon that published by Julliard, who in turn used that of Compte as a foundation. In this table there are included 638,461 administrations of chloroform, with a total of 170 deaths; 300,157 administrations of ether, with a total of 18 deaths, giving a mortality of chloroform anesthesia as one in 3,749, and ether anesthesia as one in 16,675."

"In the proceedings of the German Surgical Society in Berlin, 1891, sixty-six European surgeons reported nearly 23,000 cases of chloroformization, with six deaths, giving a proportion of one in 3,776." (Loc. cit. Dennis' Surgery, vol. 1, page 646.)

At the twenty-fourth congress of German Surgeons, held in the year 1895, Prof. Gurliet, of Berlin, presented statistics for five years, showing one death to every 2,909 chloroform narcoses, and one death to every 6,004 ether narcoses. The same surgeon reported thirty cases of pneumonia following ether anesthesia, fifteen of which terminated fatally; thirteen of these occurred after abdominal operations. The reason assigned for this was, that after abdominal operations the pain caused suppression of coughing.

"The conclusion reached by the commission (Hyderabad) is that there are thirteen times as many deaths from chloroform as from ether, and that the number of inhalations of chloroform has been six times as great as those of ether, which gives a mortality rate to chloroform more than ether, double that of ether. These results correspond with the statistics of the St. Bartholomew Hospital, which are very much more favorable to chloroform than are the conclusions to be drawn from the large mass of statistics, which mass gives the proportionate mortality about as four and one half to one."

Dr. Wood, from whose article in the Dennis' System of Surgery the above is a quotation, expresses himself in the very cogent terms as follows:

"I personally believe that the large statistics (Gould, Julliard, and Compte), overwhelming as they are in the number of cases reported, represent as near as can be the true state of the case, and that the surgeon who administers chloroform faces the fact that the dangers of its use are more than four times those which confront the man who administers ether." Before leaving this particular point, however, it is well

to repeat the very expressive remarks which Dr. Wood made in his Berlin address, namely:

"I doubt very much whether one third of the deaths from anesthesia are reported; certainly not one third of the cases I have had personal knowledge of have been publicly recorded. Moreover, the pressure to conceal deaths from chloroform is greater than when the lethal result is due to ether. The surgeon who uses ether feels that he has employed the safest anesthetic and that he will receive no blame if a death occurs from it; and feels also that he has a rare case to put on record, which will give his own name a permanent place in anesthetic literature; whereas, the surgeon who uses chloroform knows that if death occurs from the anesthetic a large proportion of the profession, at least in the United States, will condemn him either in public or secret for the use of this drug, and that he will be fortunate if he escape being publicly condemned by a coroner's jury. Moreover, deaths from chloroform are only too common, so that the surgeon has nothing to gain and much to lose by publication of a chloroform death, and if possessed of the average human nature holds his peace."

The reasons explaining the comparative fatality attending the use of the two agents have been sent forth in the following conclusions, which were drawn from an essay already referred to:

"First, that the use of any anesthesia is attended with an appreciable risk, and that no care will prevent an occasional loss of life.

"Second, that chloroform acts much more promptly and much more powerfully than ether, both upon the respiratory centers and the heart.

"Third, that the action of chloroform is much more persistent and permanent than that of ether.

"Fourth, that chloroform is capable of causing death either by primarily arresting the respiration, or by primarily stopping the heart, but that commonly both respiration and cardiac functions are abolished at or about the same time.

"Fifth, that ether usually acts very much more powerfully upon the respiration than upon the circulation, but occasionally, and especially when the heart is feeble, ether is capable of acting as a cardiac paralyzant and may produce death by cardiac arrest at a time when the respirations are fully maintained.

"Sixth, chloroform kills, as near as can be made out, proportionately four or five times as frequently as does ether; partly, no doubt, because

it is more powerful in depressing the heart, but largely because it lets go its hold much less rapidly than does ether when inhalation ceases. Is it not possible that this "holding on" is because it is less volatile than ether; and can we not here get a hint why chloroform is less deadly in the south than in the north? The diffusibility of vapors or gases is in inverse proportion to the square of their densities, and the vapor of chloroform would certainly diffuse itself with far greater rapidity at 90° F. than at 70° F."

In a later communication Dr. Wood expresses himself even more forcibly than in the foregoing, namely:

"Nevertheless the comparative volatility of the two anesthetics and the comparative diffusibility of their vapors appear to be distinct elements in the comparative danger of their use. There is very great reason for believing that chloroform is less lethal in hot climates than in colder regions. The British surgeons of India aver with one voice that they can administer it without evil effect. The anesthetizers of the extreme southern or Gulf tier of American States are almost equally urgent in claiming safety for the use of chloroform, while on the continent of South America it is solely employed, again with alleged freedom from ill effect. The only explanation of these facts which to me seems plausible, is that at high temperatures chloroform vapor diffuses very rapidly, and consequently escapes from the blood and from the lungs with extraordinary rapidity."

LOUISVILLE.

TEMPORARY PARALYSIS FOLLOWING GASTRIC DISTURBANCE.—BOUX has had occasion to observe (*Journ. de Méd.*, September 10, 1896,) a case of paralytic symptoms appearing suddenly in the course of an attack of gastric disturbance. The patient, who had been suffering from dyspeptic symptoms of a mild degree for about a week, suddenly suffered from general weakness, fever, and lumbar pain, which in the course of some hours resulted in complete paralysis of the lower limbs, diminution of the knee-jerk, and of sensation of pain, the sphincters being unaffected. This condition lasted a week, disappearing as rapidly as it came on, and without leaving any trace. The author, without committing himself to any diagnosis, draws attention to the analogy presented by this case with acute spinal paralysis. The case, however, seems to differ in some respects from ordinary cases of this disease, more particularly in the fact of the pain sensation being altered.—*British Medical Journal*.

Reports of Societies.

LOUISVILLE CLINICAL SOCIETY.*

Stated Meeting, March 2, 1897, Dr. ———, President, in the chair.

The essay of the evening was read by August Schachner, M. D.; subject, "Two Points Concerning the Ether-Chloroform Controversy." [See page 206.]

DISCUSSION.

Dr. T. P. Satterwhite: If I understood Dr. Schachner correctly, he stated that all deaths from chloroform were due to an overdose. We have certainly all heard of cases in which there was merely the first inhalation of chloroform, and death ensued.

Dr. P. Gunterman: I agree in almost every thing the essayist has said, even as to the death-rate from chloroform and ether, but there is a point I would like to mention, of which in my reading I have often thought, and of which I have been reminded during discussions at our meetings: chloroform and ether are given as anesthetics for capital operations mainly, and are sometimes given for a great length of time. Chloroform can be given to any individual, suffering with any disease, and at any age, without our being afraid of it, as chloroform, except as an anesthetic, will do no harm. Ether can not be given in that way. Ether ought not to be given to anybody that is suffering from kidney disease, bronchitis, in labor, etc. There are a great many cases of death not reported as due to ether, but as due to suppression of urine. If these cases were properly analyzed and recorded, I suppose the death-rate from ether anesthesia would be as large as that from chloroform. I know that some of our friends here occasionally report cases of laparotomy where the patients seem to do well for several days after the operation, yet they die from suppression of the urine, and they never attribute the death to ether. If these same patients had been given chloroform instead of ether they might have lived. These cases ought to be reported as deaths from ether, and not suppression of the urine. If such cases were tabulated and added to the list of deaths

*Stenographically reported for the American Practitioner and News by C. C. Mapes, Louisville, Ky.

from ether, I believe the death-rate from chloroform and ether would be about alike.

Dr. August Schachner: As stated in the preface of my paper, the views therein expressed are not my own. I have quoted freely in an endeavor to present the views of the various authors for discussion, and I would like to ask that the two points being considered be kept in mind as far as possible in the discussion, because it is such a wide subject, and can be approached from so many different standpoints, that unless the discussion is confined to the points raised, it will take a wider range than is called for. The two points are (1) the manner in which the two drugs chloroform and ether kill, and their comparative fatality; (2) the reason for such fatality.

Dr. W. H. Wathen: I know nothing of the results from chloroform and ether from having given either in surgical work. My experience in giving both chloroform and ether has been confined to obstetric practice, and of course I have had no trouble. But I have noticed closely in my surgical work the results following the administration of chloroform and ether. I do not believe I have ever known a death to result from chloroform primarily or secondarily in my practice, but there have been two or three cases that I can recall, possibly more, where the patients did well for a while, where they were in such condition as to cause no uneasiness as to a final result, but within two, three, or four days there was found to be but little urine, finally total suppression following the administration of ether, and I am inclined to the opinion expressed by Dr. Gunterman, that if we consider the primary and the ultimate results of chloroform and ether, we will find that there are comparatively as many deaths from ether as from chloroform, though I believe there will be found more deaths from chloroform during the administration of the anesthetic.

Dr. Carl Weidner: That the two questions brought up by Dr. Schachner's paper, which are the most important in connection with the administration of chloroform and ether, have not been practically settled is evidenced by the large number of papers which have appeared in medical journals within the last few years since the Congress in 1891. Surgeons or heads of large clinics have given just as different views in the last few years as have obtained heretofore. I have read several contributions on this subject, and have followed the matter with a great deal of care, having been an adherent to chloroform anesthesia, possibly because of my early teaching and the further

fact that I have never had a fatal result from its use. I do not like the appearance of a patient under ether anesthesia, and, like most of those who have not had much experience with ether, I have always preferred chloroform.

Without trespassing over the limit mapped out by Dr. Schachner, and I think rather coming into line with one of the questions he has raised, as to how do chloroform and ether kill, I may state that within the last year, by the experiments of Rosenbach, we have been given one practical suggestion which, if it proves true, may lessen the deaths from chloroform. This suggestion started out with the view or theory that chloroform frequently killed by direct inhibition of the vagus, this inhibition being caused by stimulation of the branches of the trigeminus in the nose. To overcome this irritability of the nasal branches of this nerve he suggested a thorough cocainization of the nasal passages, using a ten-per-cent solution of cocaine by means of the spray. He found by the use of this method that instead of the patient beginning to strangle and show signs of irritation about the respiratory passages, as they sometimes did without cocainization, producing a very marked irritability of the heart's action, that the heart's action remained normal from the beginning, provided chloroform was started carefully by the drop-method of Esmarch. That would be an indirect proof that chloroform has some effect upon the heart, or upon the nerves, whichever you take it to be, which regulate the heart.

My experience agrees with that of Dr. Satterwhite. I think, from the study of a good many cases, I am justified in saying that at least half the deaths from chloroform occur in the early part of the administration; a few whiffs being taken, the heart's action will stop, followed by cessation of respiration. Those cases might be explained by shock, fear, etc., but they speak more for the effect of chloroform upon the heart than any thing else.

One of the other points mentioned, as to statistics in explanation of the results of chloroform and ether: I see just as much variance to-day as ever before on this subject. Most of the recent statistics state that there is possibly more danger with ether than with chloroform. In an article published in 1896 Prof. Riedel, in reviewing a large number of ether administrations, admits that in more recent investigations he has found, considering the after-effects including the final results, that the deaths from ether have undoubtedly increased, and quotes one authority as stating that the mortality is greater than from chloroform.

It is important to consider the after-effects of ether in this connection. Almost all authorities are agreed that ether should not be given where there are certain complications, as for instance diseases of the air-passages and the kidneys. We shall always have to be guided in selecting the anesthetic by the individual case. If we have the case of an old man suffering from bronchitis, a tendency to emphysema, etc., then chloroform is the safer anesthetic. If the patient is a younger subject in a healthy condition, all things being equal, ether may be safer.

Dr. Louis Frank: They say that figures do not lie. I think there is nothing so deceiving as statistics. And this is also true of statistics concerning the various forms of anesthesia. There are so many things to be taken into consideration that it is a hard matter to draw deductions or to be perfectly accurate, judging from reports given out by operators and those giving the anesthetic. If chloroform is used, the exact condition of the patient, the rapidity with which the anesthetic is given, quantity, etc., must be taken into consideration. The same is also true of those cases in which ether is given. Without facts of this kind it is impossible to procure statistics that are absolutely reliable and incontrovertible. Again, the experience of those giving the anesthetic must be considered. These questions have been discussed so thoroughly of late that there is really little left to be said.

Concerning the point brought out by Dr. Gunterman, where patients have died from suppression of urine not necessarily due to kidney disease in cases where ether was used as the anesthetic, I have seen the same thing result in cases of chloroform anesthesia. I have one such case in mind now. It is a weakness, at times, for some operators to attempt to shift the responsibility of death on the anesthetic. These things must be borne in mind whenever such cases are reported by operators, otherwise it is hard to draw deductions which are absolutely accurate. Of one thing we are certain as to the action of chloroform and ether respectively: one raises arterial tension, the other lowers it; one acts as a depressant, the other as a stimulant, to the heart. If one sees patients come off the table after a prolonged anesthesia with ether in one case and chloroform in another, the conditions having been as nearly equal as they can be, there will be very little doubt in his own mind as to which is the safer anesthetic, ether or chloroform. I myself, from such observation in my own work, have concluded that ether is the safer anesthetic.

Dr. Philip F. Barbour: Usually we feel that ether is the safer anesthetic to use primarily, but there is some doubt in the minds of most of us whether it is in the long run the safer. This is a question which I believe has yet to be decided. Personally I never give chloroform without a feeling of anxiety until the patient is out from under its influence. With ether I do not feel that anxiety while administering it, but afterward watching what the effect upon the kidneys will be. In most of the cases I have seen reported of deaths from chloroform it has been at the beginning of anesthetization, which should be a lesson to us in giving the anesthetic. I have heard of several cases of death in Louisville under chloroform before the knife was used, just at the beginning of anesthetization. The patient ought to be watched from the very first whiff of chloroform. In my experience chloroform seems to affect the heart more profoundly at first, and later the respiration. I always watch the pulse at first, and as the operation draws to a close I watch the respiration more closely under chloroform anesthesia. The amount of the anesthetic used is of considerable importance. Authorities tell us that chloroform in equal quantities with ether has even a worse effect upon the kidneys. So it is the amount of chloroform and the way it is pushed that helps to make up the danger. In children chloroform is much the safer anesthetic, as the bronchial tubes are very susceptible to the irritation of ether.

Dr. W. C. Dugan: So far no one has reported a fatal case occurring in his practice under either chloroform or ether. I simply rise to congratulate Dr. Schachner upon his most excellent paper and to say that I have been less fortunate. He has gone over the subject and covered it so thoroughly that there is very little left to say, except to report our individual experiences. In selecting the anesthetic we should first study our patient carefully, examine the condition of the kidneys, lungs, age of the patient, etc. The individual experience of the person who is to give the anesthetic must also be considered; if he has had experience in the administration of chloroform and has had no experience in giving ether, then I would be very loath to consent to the administration of ether by him, unless there was some especial contraindication to chloroform, and *vice versa*.

As to whether patients die from cardiac failure or from paralysis of respiration I am unable to say. I believe that I have met with deaths both ways. I remember one patient having a large ovarian tumor, one that almost hung to the ground it was so immense, where the

patient was cyanosed continually and had been for some time. I put her on the operating table, and chloroform was selected as the anesthetic, and the anesthetist told me that she took but one shallow inspiration. She never breathed again, nor was there the slightest sign of further pulse beat. She seemed to die of both cardiac and respiratory paralysis, and notwithstanding the fact that we tried every known method of resuscitation the result was negative. As Dr. Barbour has said, it was before the operation was started. I found that the pressure was great on the diaphragm and made a free opening to liberate the contents of the tumor, while others practiced artificial respiration, but death had taken place, and we observed no result of our many efforts.

The next patient was a healthy young woman, having no pulmonary, cardiac, or renal disease. The operation was for a fissure of the anus. Dr. Guest gave the anesthetic, and I think I never saw it given more skillfully or more carefully. She went under its influence lying on her side, and took it like a child; she took very little, and laughed and talked at the beginning, showing that she was not excited. I never saw her when she was more at herself. The operation, which consisted of simple divulsion, was concluded in a few minutes, and then she was sponged off and covered, and I was waiting to see her come out from the anesthetic. I asked Dr. Guest her condition, and he said she was all right. A moment later I noticed she was not breathing naturally, and again asked what he thought about her condition, and he replied that she did not seem to be breathing satisfactorily; in fact she was not breathing at all. We then practiced artificial respiration. The pulse was all right and continued so for some time, but we were unable to get her to breathe notwithstanding the fact that we practiced artificial respiration, and did all that was recommended in such case for at least forty-five minutes.

The next case was a physician from Southern Indiana, in which Dr. Guest also gave the anesthetic. We selected chloroform at the patient's request. When the operation was about completed his respiration suddenly stopped. His pulse was good all the time. The operation was for appendicitis, and had been concluded all but closing the abdominal cavity. We stopped the operation and directed our attention toward resuscitation, which was successfully accomplished in five or six minutes. I then started to close the abdomen, but found it impossible to do so without further anesthetization, and as chloroform had produced such a disastrous effect we tried ether, which came very near

resulting fatally. We had exactly the same result—arrest of respiration; so both had the same effect on this case.

In the first case both the cardiac and respiratory centers were paralyzed from chloroform. In the second there was paralysis of the respiratory center, but the cardiac seemed to be all right. In the third case the man came near dying from the effect of chloroform upon the respiratory center and was resuscitated; then ether was given with the same result, only the impression was more profound under ether. I have had quite a number of accidents that looked as if death must result, but so far have lost but two cases. I make it a rule to have experienced anesthetists in all cases unless they can not be had.

Dr. William Cheatham: During my service in the hospitals of New York I gave a great deal of ether, and remember to have had but one close call under its use, which was as a result of kidney complications. This was in quite a prominent man, a patient of Dr. Agnew's, who came very near dying from suppression of urine. The man probably had some kidney trouble primarily.

I do not remember to have had a death from chloroform, but have had one or two close calls. One case I have already reported occurred at the college clinic, the patient being a young, healthy, strong Irish girl. She came to the clinic alone to be operated upon, the intention being to enucleate her eye. I refused to operate unless she would bring some one with her, and the next clinic day she came back with her sister. Chloroform was given as the anesthetic, and there was not the slightest trouble during its administration. The operation was finished, and I turned around to the class to open the eye and explain the condition to them, when the patient suddenly stopped breathing. We gave her the usual hypodermic injections, but without any result. We worked with her by the different methods, it seemed to me, for at least half an hour without success, but finally, after making rhythmic traction on the tongue by means of a needle and thread thrust through it, pulling it backward and forward, she finally began breathing all right. She afterward made a good recovery.

Referring to Dr. Weidner's remarks about cocaine: I am very much afraid of this agent, and would not dare spray a patient's nose with a ten-per-cent solution of cocaine without giving some heart stimulant. I usually give whisky or the valerianated ether. Strong solutions of cocaine sprayed into the nose are much less likely to prove fatal, I think, than weak solutions long continued. Strong solutions contract

the tissues very quickly, and less cocaine will be absorbed than if you use weak solutions and spray the nose more freely.

I was unfortunate in not hearing all of Dr. Schachner's paper, but Dr. Guest read a similar paper before the Louisville Surgical Society recently in which several important points were brought out. One was that the patient should not be anesthetized in a different room from the one in which the operation was to be done. Not only is time lost by this plan, but the patient comes partially out from under the influence of the anesthetic while being moved, and the anesthetic has to be re-applied. There seems to be considerable danger in such a procedure, leaving off the chloroform and then commencing inhalation again. A great many deaths have been recorded from this cause. It was suggested that the patient be anesthetized if possible on the operating table, and in such a position that he will not have to be moved during the operation.

Dr. August Schachner: I recognize that a subject like this is handled rather at a disadvantage in the short space of time to which we are necessarily limited; it ought to be taken up in its entirety, and our time does not allow us to do that.

In regard to studying the patient: I quite agree in what has been said, and that point is made very emphatic by every authority who has written on the subject. We can not say that ether or chloroform should be used as the anesthetic. When we say we prefer ether, we simply mean that we prefer it unless there are some distinct contraindications to its use. The same thing applies to chloroform.

As to whether the patient should take chloroform or ether, and referring especially to Dr. Wathen's remarks concerning suppression of urine, there is a question as to the relative effect upon the kidneys of chloroform and ether. I believe that ether has more effect upon the kidneys than chloroform, but if we would accept the results of Wunderlich's investigations we would be compelled to think that the matter is by no means settled.

Rosenbach claims that cocaine has an antagonistic effect to chloroform, and based upon this he sprays cocaine into the nose to prevent the reflex action of chloroform upon the trigeminal nerve. Gerster has had some trouble following the administration of cocaine as suggested by other authorities, notably Rosenbach.

In regard to the variation of statistics, every one knows that despite all care some errors will creep in, but as Wood has said, where we have

such an immense mass of statistics, reaching up to several hundred thousand cases, it is reasonable to suppose that errors on one side would be counter-balanced by errors on the other, so we would come out about correct.

In the case mentioned by Dr. Dugan, the physician from Indiana, there may have been some idiosyncrasy to any anesthetic. It simply illustrates that there is a great deal in connection with the subject that has not yet been thoroughly settled.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The late Sir Spencer Wells; A new President; The C. D. Act in India; New Legislation for Habitual Drunkards; Health of the Navy; An Amusing Story; A Central Hospital Board for London; Presentation to Sir William Broadbent, etc.

Medical science was largely represented at the Memorial Service to the late Sir Spencer Wells in St. Margaret's, Westminster. As the body of the distinguished physician was cremated at Woking, the service was somewhat modified. The chapel was well filled by the general public, there being a great number of nurses present. The relatives were represented by Sir Arthur Wells, son of the deceased.

The ladies' papers express their satisfaction as to the election of Mrs. Garrett Anderson to the presidency of the East Anglian branch of the British Medical Association, the event being considered to mark in a very striking manner the progress made by the lady doctor during the last few years.

Lord George Hamilton, on being questioned on the subject of the suspension of the Contagious Diseases Act in India, admitted the correctness of the statement that during the year 1895 no fewer than five hundred and twenty-two soldiers per thousand of those serving in India that year were admitted into the hospital suffering from diseases which were practically preventable while the acts were still in force. The average time of each man remaining in hospital is thirty-two days. The suspension of the C. D. Act was brought about by a combination of faddists and purists, and has always been opposed and deplored by those who have the welfare of the

soldier at heart, with a practical knowledge of the temptations surrounding him.

Dr. Norman Kerr has received a letter from Lord Salisbury confirming the intention of the Government to bring in, should time admit, a bill for amended legislation for habitual drunkards during the current session.

The returns for 1895, according to the blue book just issued, on the health of the navy show that with the exception of one year the ratio of invaliding, 25.26 per 1,000, is lower than it has ever been for the forty years during which the present system of "Statistical Reports" has been in vogue. The various primitive expeditions on the east and west coasts of Africa led to a great increase in malarial fevers. In all these operations on shore quinine was administered to the officers and men for three days before leaving the ships, during the time they were away, and for three days after their return on board.

At a meeting of the Pathological Society, of London, Mr. S. Boyd said that in his experience the results of double castration in the adult were variable and inconstant. He mentioned a case of a man of fine physique from whom he removed both testicles, one at the interval of some months after the other. There was no result after the first operation, but the removal of the second testicle was followed by the patient becoming mentally childish, weeping at times without being able to explain why. In time these mental symptoms wore off. In a second case an older man after double castration became very fat. In cases of double oöphorectomy in the treatment of carcinoma of the breast the results, Mr. Boyd thought, pointed to the formation of some internal secretion by the ovary, the absence of which retarded the growth of carcinoma. The change in the tumor could not be ascribed to the cessation of menstruation, as such growths often commenced after the menopause or continued to increase after it.

A good story has just been told regarding a little ruse adopted by a doctor's patient who wished to save the expense of consulting him. The patient was a woman of good means but of frugal disposition. Feeling uneasy regarding her health, and wishing to save an expert's fee, she made an application to a life insurance company for a policy of a large amount, so large, indeed, that they delegated three medical men to make an exhaustive examination of her. In due time she was informed that her life had been accepted. She then answered she was quite well, and told the company she would not take out a policy.

A crowded meeting has been held to consider the advisability of establishing what is designated a Central Hospital Board for London. The duties of the Central Board would be to obtain the annual reports and balance sheets of all hospitals, dispensaries, and the like, within the metropolitan area, together with the returns of in-patients and out-patients and casual cases, to require that the accounts of all such charities should be audited by competent chartered accountants, to arrange for the institutions to be visited and reported upon, and to make recommendations regarding

any proposals for the establishment, rebuilding, enlargement, or removal of hospitals. It would further be the duty of such an organization to publish an annual report containing full particulars relating to the financial position, the work and the requirements of all the charities under its control, to secure bequests, legacies, and contributions in aid of them, and to make grants to them in furtherance of any special object. At the meeting stress was laid upon the fact that hospitals and dispensaries of the metropolis are, generally speaking, situated in districts where they were required to meet the demands for medical relief during the last and the earlier part of the present century, and that consequently many districts which have grown apace of more recent years are ill supplied with such institutions. At present there is not much co-operation between existing charities; the competition is so keen that if one hospital is careful in the administration of its out-patient relief department, applicants who are rightly excluded from it go at once to a neighboring hospital, "where no questions are asked."

The Prince of Wales has intimated that he will formally open in May next the south wing of the new Medical School buildings at Guy's Hospital. The sum required was about £13,000, and it has been entirely subscribed by the members of the staff and the teachers in the Medical School. The new wing includes a large lecture theater and a fully equipped physiological department.

The old students of St. Mary's Hospital have been instrumental in presenting Sir William Broadbent with a service of plate, Sir William Broadbent having been connected with the hospital since 1858. When he first joined there were only 150 beds, now there are 281, and it is hoped in a short time the new Clarence wing will be completed.

The Asylums Committee of the London County Council recommend that two expert medical officers should visit the following continental asylums in regard to the lunacy problem in the metropolis: Paris, St. Anne's Hospital and Salpetriere Asylum; Berlin, Charité Hospital; Saxony, All-Scherbitz Insane Colony; Hanover, Bielefeld Asylum; and Belgium, the Gheel Insane Colony. It is felt that the scientific study of mental diseases in England is not on such a high footing as in many places on the Continent. The recommendation of the committee will most probably be carried out in a short time.

LONDON, February, 1897.

Abstracts and Selections.

THE COMPULSORY NOTIFICATION AND ISOLATION OF PULMONARY TUBERCULOSIS.—In last week's Journal (p. 74) an abstract was given of a supplementary report on the subject of pulmonary tuberculosis, made to the New York City Board of Health by the pathologists of the board, Drs. Biggs and Prudden. A previous report had been rendered in November, 1893.

As a result of this supplementary report, the Board of Health, at a meeting held January 19th, enacted an addition to the Sanitary Code, which officially declares pulmonary tuberculosis an infectious and communicable disease. The new section of the code prescribes that it shall be the duty of every physician in the city of New York to report to the Sanitary Bureau the name, age, sex, occupation, and address of every person suffering from this disease, who has come under his observation for the first time, within one week of such time. Also, that it shall be the duty of the authorities of every public or private hospital or dispensary to report in the same way every case treated in such institutions. Finally, that it shall be the duty of every person with this disease, and of every person in attendance on such cases, and of the authorities of public and private institutions, to observe and enforce all the sanitary rules and regulations of the Board of Health for preventing the spread of pulmonary tuberculosis. The new law renders physicians and laymen alike liable to punishment for misdemeanor when any part of the section is violated. An important feature of the law also provides for the isolation of patients in aggravated cases.

In order to facilitate the restriction of tuberculosis, the Board of Health has ordered the preparation of a map, showing every house in which there is a case of the disease, and also every house in which a death has occurred from it.

Following this extension of the Board of Health's Sanitary Code, at a meeting of the New York Academy of Medicine, held January 21st, Dr. Irwin H. Hance read a paper entitled "A Further Study of Tubercular Dust." The paper was based upon experiments made by the reader at the request of Dr. Biggs. Dust was collected in hospitals, dispensaries, tenement houses, and public conveyances, and healthy guinea-pigs were inoculated with a solution in which it was introduced. Three out of four guinea-pigs, inoculated with dust taken from a tenement-room in which a phthisical woman had lived and died, died with well-developed tuberculosis; while four guinea-pigs, inoculated with dust taken from a room where a patient with tuberculosis lived, but who observed the regulations of the Board of Health, showed no signs of disease. At the end of fifty-seven days the animals were killed, and no trace of tuberculosis was discovered in them.

As to the dust collected from street-cars, of sixteen guinea-pigs inoculated with dust from dirty places, five died ; of twelve inoculated from clean places, two died. Five more when killed showed signs of tuberculosis. One in five cars examined was found dangerous to the health of the traveling public.

Having demonstrated the existence of tubercular dust in the waiting-room of a dispensary, Dr. Hance went on to say, "The proof of its existence in this one case demands greater care on the part of the managers of such institutions, where so many children are brought to be treated for other diseases, and while waiting their turn, subjected to a real danger." In speaking of tenement houses, he said: "The result of the experiments shows that the seeds sown by the Board of Health are bearing fruit. All the cleanly apartments were found free from infection. This proves the wisdom of granting the Board of Health power and authority to order such cleaning and renovation of tenements as is required."

This question of compulsory notification and official supervision of pulmonary tuberculosis was discussed at much length at a special meeting of the College of Physicians of Philadelphia, called for the purpose in January, 1891. Its adoption was opposed at that time by several physicians to whose opinions much weight must be given.

The provisions lately adopted by the New York City Board of Health are undoubtedly in a measure revolutionary, and may, we fear, prove somewhat extreme, and in advance of public and medical opinion. We can not but think, however, that they are in the line of future progress in the application of medical and sanitary science.

Laws are only useful in so far as they can be enforced, and enforced with less loss and injury than is entailed by their absence. The useful and possible enforcement of the regulations under discussion will depend very greatly upon the tact, discretion, and good judgment of those intrusted with carrying them out. The working and the results of these regulations in New York will be watched everywhere with much interest.

Pulmonary tuberculosis is only one of several important diseases in which the bacteriological laboratory is invading the former domain of the clinical practitioner. Diphtheria is another. The question of diagnosis, of isolation, of treatment in the large sense, is decided to-day in the laboratory rather than at the bedside. There is a danger of being too ready with these new-found weapons, of expecting too much from them ; but there is also the danger of rejecting them because they are new. The general practitioner may be a very desirable check upon the enthusiastic bacteriologist, but the practitioner, the hospital clinician, the bacteriologist, should all co-operate cordially and heartily together and carry the general public along with them by example as well as by precept.

There is work for all, and distinction to be gained from good work by all, but there should be no room for jealousy and no time for hindrance.—*Boston Medical and Surgical Journal.*

THE ORGANISM OF SYPHILIS.—Van Niessen (reprint from *Wien. med. Woch.*, Nos. 36-40, 1896,) replies at some length to the critics of his book on the syphilis bacillus, and adduces further evidence in support of his views. His later work has been carried on mainly in two directions: First, the comparison of micro-organisms stained in syphilitic tissues with those observed in pure cultures; and, secondly, the cultivation of the specific bacillus from the affected tissues. He has especially investigated syphilitic lesions of the brain and spinal cord. Sections of these were stained by Gram's method or cultivations made by imbedding little pieces in gelatine, so that one surface was left exposed to the light. On this numerous colonies soon developed, which were employed in further researches. The author claims to have infected eight rabbits in various ways, so as to produce secondary syphilitic lesions, but he has not yet succeeded in inducing the primary lesion upon the genitals. Owing to the great difficulty of excluding other causes, such as infection by tubercle and coccidia, his researches in these directions are not yet ripe for publication. He has, however, been able to demonstrate the "syphilococcus" in an excised primary sore of the prepuce, and also to cultivate it in gelatine mixed with the blood taken from the wound produced by the excision. The cocci were present throughout the tissues removed, but were particularly abundant, often forming emboli, in the deeper layers. Van Niessen is therefore convinced of the diagnostic value of the organism in primary affections, and although the result with later syphilitic lesions of the central nervous system are not as yet equally consistent, he is convinced that further improvements in investigation will render them equally available for diagnosis. His inoculation experiments are very striking. A pure culture of the organism, from the primary sore above mentioned, on veal broth was injected two months later into three rabbits, a goat, a guinea-pig, and a pigeon. In several of the animals typical hard sores developed, which in the pigeon took on a phagedenic course, while in the goat and one of the rabbits gummata developed. The syphilis thus produced in animals was characterized by slow and protracted symptoms, by a marked tendency to cell proliferation in the form of a tumor with necrotic centers, and by involvement of the capillaries and lymphatics. The author claims to have proved that his syphilococcus when injected in pure culture into animals will produce both the typical primary affection and gummatous tumors.—*British Medical Journal.*

SODIUM NITRITE IN THE TREATMENT OF SYPHILIS.—In the *Indépendance médicale* for November 4th there is an abstract of an article from the *Giornale italiano delle malattie veneree e delle pelle*, in which the author, Dr. Florio Sprecher, states that M. Pétroué has recently tried sodium nitrite in the treatment of rabies and syphilis. The results were successful in the latter disease only, and the author, encouraged by this example, experimented with this new method. He used very pure sodium nitrite

in solutions of from four to eight, twelve to sixteen, and twenty to twenty-five per cent. The injections were made daily, either into the subcutaneous tissue or deep into the muscles. During the first days only a few centigrams were injected, but afterward the doses were progressively increased; the daily quantity never exceeded eight grains, and the treatment was never prolonged over thirty days. The injections never caused abscesses or left indurations.

The author states that among twelve women treated by him two showed such an intolerance of the sodium nitrite that the treatment had to be given up. With regard to the others, the author is obliged to admit that the results obtained were entirely contrary to those published by M. Pétroué. There was no amelioration of the general condition and there was no increase in weight; the anemia remained the same in five patients and was aggravated in the rest. The initial syphiloma and the lymphatic glands were not at all modified under the influence of this remedy, but the so-called rheumatoid and osteocopic pains, as well as the neuralgia from which the patients suffered were attenuated under the influence of sodium nitrite. On the other hand, in two men the osteocopic pains did not appear, except during the treatment. The cutaneous syphilides were aggravated, and those of the mucous membranes were not modified. Regarding the two cases in which this treatment was not tolerated, cyanosis, nausea, and vomiting were observed in one, and cyanosis and violent pain in the other. The author concludes that this remedy is not efficacious, and furthermore that it presents the dangers of poisoning.—*New York Medical Journal*.

INJECTIONS OF ARTIFICIAL SERUM IN UREMIA.—Richardière (*Union Méd.*, December 5, 1896,) has used large injections of artificial serum in two cases with good results. His practice is to bleed to 300 to 400 grams, and immediately inject slowly into the cellular tissue 800 grams of the serum at the temperature of the body. The serum is made after Hayem's formula, and is used aseptically. His first case presented intense dyspnea, numerous mucous and subcrepitant râles all over the chest, and nearly all the subjective symptoms of Bright's disease, with extensive edema. Under ordinary treatment the patient got worse, respirations rising to 48 per minute, with Cheyne-Stokes character, and suffered from hallucinations, so that six days after admission he was comatose, and dyspnea was still increasing. Bleeding to 300 grams, with injections immediately after, was followed by a fall of pulse-rate from 140 to 120; the temperature rose from 37.8° to 37.9°, and the respiration became slower and regular. During the next few days the urine increased in amount, then fell again, when Cheyne-Stokes breathing reappeared, and the state became alarming. The patient was bled again 250 grams, and injected 800 grams; a second injection was given six hours afterward. Temperature rose 35.8° to 37°, and no further trouble occurred, although the edema

persisted; respirations remaining regular, and he remained free from somnolence, passing about one liter of urine in twenty-four hours. The second case presented signs of grave uremia; injection was followed by improvement, which failed again in twenty hours. A second injection was followed by profuse diarrhea, and caused permanent amelioration of the condition. He quotes other cases, and points out that the injection is harmless though painful; it raises the temperature, slows the pulse, and steadies breathing previously irregular and of a Cheyne-Stokes character, lessening the rate at the same time. It also increases the amount of urine, and seems to have a tendency to produce diarrhea, which he looks on as favorable.—*British Medical Journal*.

PRODROMAL ERUPTIONS IN MEASLES.—Robet has collected a number of observations (*Journ. de Med.*, September 10, 1896,) showing that measles may have a premonitory rash, as is the case with variola and varicella. These eruptions vary in character, being scarlatiniform, morbilliform, and erysipelatous. They may even resemble red miliaria, showing small vesicles filled with a clear fluid surrounded by a pink areola, and accompanied by itching. The erythemata generally appears about the second day of the period of invasion, and disappears before the measles eruption, and they do not seem to affect in any way the invasion period of the disease, and the temperature course in nowise differs from the cases in which there is no such premonitory rash; nor does the subsequent condition of the patient show the least difference; moreover, there does not seem to be any serious constitutional effect similar to that following the erythematous eruptions met with in diphtheria, enteric and some other diseases. The author admits that the number of cases sufficiently recorded is as yet too small to warrant any statistics being drawn, but he thinks that these premonitory rashes are much more frequent in measles than is generally supposed.—*Ibid*.

ATRESIA AND ITS CAUSE.—Meyer (*Zeit. f. Geburtch. und Gynäk.*, vol. xxxiv, Pt. 3, 1896,) has published a very complete monograph on this subject, with no fewer than two hundred and sixteen cases carefully tabulated. He does not confirm Kussmaul's doctrine that ill-development of the lower part of the genital tract with atresia is due to fetal inflammation. It is in infancy and childhood that these inflammations occur, such as vulvitis and local lesions in general infectious disorders. The vagina closes, the tissues heal and look healthy after a time, and it is not till puberty that the damage becomes manifest. Then it is easy to understand how the disease might be wrongly considered congenital. Unilateral hematosalpinx, with inflammatory closure of the vagina, is very often observed, and Meyer holds that there is closure of the tube at the ostium from the same inflammation, due to some infective agent. As the agent can cause septic changes in the blood in the tube, the ultimate rupture of the hematosalpinx into the peritoneum or into some visceral cavity puts the patient to great peril. This explains the high mortality of atresia vaginæ with unilateral hematosalpinx.—*Ibid*.

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNÆ"

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D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.
JOHN L. HOWARD, M. D., Assistant Editor.

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THE MEDICAL TREATMENT COMPANY OF NEW YORK.

The Medical News' latest issue devotes a half-jesting, half-in-earnest editorial to the fact that a medical trust has recently been formed in New York, whose purpose it is to farm out the practice of physic much as surgery is and has been lumped and let out at contract (at least so far as railroads and factories are concerned) during the last decade or two.

The intentions of this progressive company are set forth in the following, which the editor quotes from their prospectus:

"THE MEDICAL TREATMENT COMPANY. INCORPORATED UNDER THE LAWS OF THE STATE OF NEW YORK. OFFICE: 19 PARK PLACE, NEW YORK CITY.—For \$1 a month the Medical Treatment Company provides a doctor as often as you need one, who will treat you or your family at his office, or at your home, as the severity of the case requires, and has the prescriptions filled at the druggist's without extra cost to you. . . . The medical staff is composed of physicians who are graduates of the leading medical colleges of this State, and are in every way fully qualified by experience to treat any case of disease. . . . The birth of a child is a physiological condition, and therefore not classed under medical treatment. Under our system, upon payment of \$5, at the time of the birth, to the attending physician, the mother will receive proper attention during convalescence."

Upon which the editor says ruefully:

To the unthinking the workings of this company may appear somewhat revolutionary, but to one who has watched the signs of the times it seems

only the legitimate outgrowth of the commercial spirit which has invaded and is likely to engulf medicine. That such a company may receive patronage enough to insure financial success is possible, and that it can hire regular physicians to do its work is probable. The extent to which the public will go for "bargains" has no limit, and the willingness with which doctors will do contract work is well known. This scheme simply organizes the city of New York into a vast lodge for the purpose of getting medical service and medicines at rock-bottom rates. That the services and medicines obtained will probably be on a par with the price paid for them will undoubtedly be true, but that generally holds good for all "bargains" and does not render them less popular.

However unethical the whole procedure seems to us of the old school of ethics and practice, we see nothing illegal in it, and the profession stands in much the same position toward it as the small shopkeeper does to the big department store. The great possibilities of the movement are all that should startle us, as the same reprehensible practice has been carried on for twenty years by the Society of the New York Hospital in its out-patient department. In fact "The Medical Treatment Company" is more worthy of respect, as it pays its physicians a salary.

Surely the (downward) path of the doctor is being made easy, and he may soon say with Solomon, Eccl. iii, 9, "What profit hath he that worketh in that wherein he laboreth?"

This disposition on the part of men of loose conscience and small attainment to cut under in fees is as old as medicine; but those who engage in such practices soon find their level, and as a rule do no serious damage to the ethically balanced and scientifically qualified physician, though it can not be denied that his income is somewhat reduced by their doings. Contract work also, by the doctor privately or in the function of physician to some lodge or society, is carried on (with the same result) to a very considerable extent in all our great cities, and these, with the multiplicity of specialties and specialists, the free dispensaries, hospitals, charity organizations, patent medicine vendors, counter prescribers, prescription refillers, prescription copiers, and prescription donors, may well lead us to question seriously if there is to be any thing left for the ethical general practitioner to do.

Certainly, if the practice of medicine can be monopolized by syndicates, and let out by contract to the lowest bidder, the days of the high-toned doctor are numbered.

But we take it that the picture is not so dark as it looks to be. The evil must cure itself, for surely no man who has labored for a sufficient number of years to qualify himself for a high position in medicine

would be willing to become the hireling of syndicates at day laborers' wages, while the low and unqualified who would accept such positions would do a grade of work that would soon plunge the office into popular disrepute.

So long as the practice of medicine is in any great measure empirical, there will be opportunity for the quack and the unqualified doctor to flourish at the expense of the learned and ethical physician; but the strides of practical medicine toward the goal of scientific perfection have been many and wide in the last decade, and every step means vantage ground that will sooner or later compass the defeat of quackery and ignorant pretense in the profession as out of it.

But money is powerful, and there is seemingly no limit to its purchasing power. The syndicates and promoters can and do trade in skilled labor at a profit in all departments of the arts and manufactures. It remains to be seen if they can buy and reduce to servitude the skilled physician, eking out to him a bare living while they pocket the lion's share of his hard-earned fees.

Notes and Queries.

ASEPTIC SURGICAL FEVER.—It has long been recognized by surgeons that operations and other forms of traumatism, such as subcutaneous incisions, simple fractures, luxations, and contusions, unattended with suppuration or other complication, may be followed by febrile reaction; and various explanations have been offered to account for this apparently paradoxical phenomenon. In open wounds the possibility of infection can not always be excluded, despite the most rigid aseptic and antiseptic precautions; and some have gone so far as to attribute the febrile symptoms that appear under these circumstances to the presence of pathogenic micro-organisms of attenuated virulence. Other investigators have sought to place the responsibility for this reaction upon the fibrin ferment set free as one of the results of the traumatism. It has, however, been shown on the one hand that the febrile state may be unattended with the presence of fibrin ferment in the blood, and on the other hand that fibrin ferment may be present in the absence of febrile reaction. While traumatism is often attended with a considerable degree of nervous shock, the attendant febrile disturbance is not to be attributed to this factor, for a variety of reasons. In this connection it is to be borne in mind that general infection may

arise from a latent or unrecognized lesion, so that the diagnosis of aseptic surgical fever is not to be made without the most rigid exclusion of all ordinary cases of fever. Such evidence as exists points to the fact that aseptic surgical fever is due to the absorption of substances set free at the site of the injury as a result of the traumatism.

From a careful analysis of the literature of the subject, in conjunction with a series of well-directed and carefully conducted observations, Schnitzler and Ewald have reached the conclusion that so-called aseptic surgical fever is due to a combination of influences, and they adduce evidence to show that nucleins and albumoses are set free through the agency of the traumatism, and that these are, in part at least, to be held accountable for the febrile reaction that takes place in the absence of infection or other tangible cause. It has been claimed that the disintegration of blood corpuscles is attended with the setting free of albumin, and investigation has shown that the nuclei of the leucocytes contain nucleohiston, which is capable of causing multiple thrombi and breaks up in the process of coagulation into histon and nuclein. As the nucleins appear in the urine in the form of alloxur bodies (including uric acid), the presence of these substances in increased amount would indicate the entrance of the former into the circulation. It has further been shown that the presence of the nucleins in the circulation is attended with leucocytosis. Now Schnitzler and Ewald were able in both animals and man to demonstrate the presence of an excess of alloxur bodies in the urine following manipulative procedures of such a character as gave rise to subcutaneous traumatism together with subsequent febrile disturbance, in the absence of infection. They also found leucocytosis under the same conditions. The inference seems therefore fair that as a result of the traumatism there are set free nucleinis, which occasion the presence in the urine of an excess of alloxur bodies and also the development of leucocytosis, and which further may be viewed as one of the factors responsible for the resulting fever.

Having advanced thus far in their investigation, Ewald and Schnitzler proceeded a step farther and confirmed the observations of previous investigators that albumose could be found at the site of traumatisms attended with extravasation of blood. It had already been shown that both nucleins and albumoses are capable of causing death in animals when injected in large amounts and of inducing febrile manifestations when non-lethal doses are employed, and more especially is this the case in tuberculous animals. In the latter, in addition to the fever, evidences of local reaction may be found after death about the tuberculous foci comparable with those noticed after injections of tuberculin. Similar reactions were observed in tuberculous animals subjected to sterile injuries, while they failed to take place in control animals. From this evidence one is forced to conclude that to the albumoses set free at the site of aseptic traumatisms must also be attributed a share in the etiology of the fever that manifests itself. Accepting the foregoing facts as established, we are furnished with an ex-

planation of the elevation of temperature often observed in tuberculous patients following operative interference of varied kind, and also perhaps of the dissemination of the tuberculous process that sometimes takes place in the same way as such dissemination follows injections of tuberculin. The same explanation may apply also to the recrudescence of latent and the lighting up of unrecognized lesions of other nature following operative measures at remote points.—*New York Medical Record.*

PATIENTS' SECRETS MUST BE KEPT.—At a recent meeting of the Medico-Psychological Association of Great Britain and Ireland Dr. Mercier read a paper on alleged exceptions to the rule of secrecy. According to an abstract published in the *Lancet* for December 5th, he thought that the question of professional secrecy was most important to alienists, for to no other physicians were important secrets so often confided, but it was a matter of daily and hourly necessity for physicians who dealt with the insane to decide, often with no time for consideration, as to the justifiability of considering a case an exception to the rule of secrecy, and yet accusations of unduly and unnecessarily revealing the secrets of their patients had never been made against alienists.

The knowledge imparted by a patient to a medical man as to his disease, said Dr. Mercier, was conceded on the implied obligation of secrecy. He impugned the dogma laid down recently that the medical man must be the sole judge of the circumstances under which the secret of the patient might be published, and proceeded to examine the alleged exceptions to the rule of secrecy. As to evidence in a court of law, he held that there were circumstances in which a man was bound to act according to his conscience, even if in doing so he incurred the terrors of the law. As to revealing the fact of a crime having been committed, he did not consider it part of the duty of the medical profession to transform itself into an auxiliary detective force, and he remarked that it was neither usual nor desirable to use against a patient information obtained under the seal of the medical confessional. As to the protection of the medical man's own wife and children, the admission of such an exception he considered would be so one-sided as to vitiate the contract of secrecy altogether, and he thought it had no foundation in principle or practice. In regard to giving information in order to prevent an impending crime, as there was no legal guidance on this question, individual judgment must be relied upon. Practically the instances seemed limited to one particular crime—viz., the procuring of abortion—as in other cases the knowledge was not usually got from the criminal. The difficulty in cases in which the malady involved danger to the community could generally be effectively dealt with in ways which did not involve the divulging of a professional secret.

Dr. Mercier concluded that a medical practitioner was not under any circumstances justified in revealing the confidence of a sane patient without his consent; and with regard to an insane patient, the information

obtained from him might be revealed when, and only when, it was expedient for the welfare of the patient or for the public safety. Dr. Mercier's paper was discussed to some extent, and there seems to have been practical unanimity in agreeing to the principles propounded by the author—principles which, it seems to us, can not be denied.—*New York Medical Journal.*

A RARE RISK FROM ANESTHETICS.—At a recent meeting of the Berlin Society of Obstetrics and Gynecology, a report of which appears in the *Centralblatt für Gynäkologie* for December 5th, Dr. Kiefer showed a specimen of perforation of the stomach by an ulcer after anesthetization. Four weeks after parturition, in Professor Martin's clinic, the patient had been subjected to a secondary suturing operation, presumably on the perineum. Previous to the anesthetization she had been in excellent condition, but she vomited immoderately after it. On the following day she was manifestly in a state of collapse, short-breathed, and complaining of a stabbing pain in the right side. The abdomen was tympanitic, but not very tender on pressure. The pulse was about 120, and there was no elevation of the temperature. She died in about thirty-six hours after the operation. In her last hours she had vomiting of bile, and seems to have gone to sleep quietly after that.

As there was no significant abdominal symptoms, embolism suggested itself at first. When the abdomen was opened *post-mortem* the protruding coils of intestine were accompanied by an abundant escape of liquid that was of a cloudy-yellow appearance and smelled aromatic and alcoholic. The peritoneum, including the serous coat of the intestine, showed recent hyperemia, and was partly covered with lymph. There was a decided hour-glass shape to the stomach, owing to firm adhesions of the cicatricially contracted lesser curvature to the left lobe of the liver in consequence of an old ulcer of the stomach. At the pylorus there was a transverse laceration about two thirds of an inch long through which the mucous membrane was prolapsed; the neighboring portion of the organ was infiltrated with bile, and there was a recent ulcer of the pylorus. The perforation had not given rise to hemorrhage.

The account leaves it to be inferred that the perforation was due directly to the excessive vomiting that followed the anesthesia. What anesthetic was used is not stated. We must probably include ulcer of the stomach among the morbid conditions that render the vomiting incidental to general surgical anesthesia dangerous. In this instance the ulcer does not seem to have been diagnosticated.—*Ibid.*

NO MORE LODGE WORK.—The following praiseworthy resolutions have been adopted and signed by the physicians of Santa Clara County, California:

"Whereas, Rendering professional services at a stipulated fee per capita per annum is derogatory to the dignity of the medical profession, we, the

undersigned physicians and surgeons of Santa Clara County, California, enter into the following agreement:

"First, we mutually, jointly, and individually pledge our word of honor not to enter into any contract or agreement, or renew any existing contract or agreement, either written, verbal, or implied, to render medical or surgical service to any lodge, society, association, or organization.

"Second, we will not render medical or surgical services to the members of the above mentioned bodies for less compensation than we charge the general public for similar services.

"Third, this agreement shall not be construed to affect existing contracts between physicians and surgeons and the above mentioned bodies.

"Fourth, these pledges shall take effect and be in force for a term of three years from and after May 22, 1896.

"This agreement shall not apply to hospitals and purely public charitable institutions."—*New York Medical Record*.

TREATMENT OF PROSTATIC HYPERTROPHY AND RETENTION BY CAUTERIZATION THROUGH THE RECTUM.—Negretto (*Gazz. degli Osped.*, December 27, 1896,) records four cases of prostatic retention treated with much success by the above method. After thoroughly emptying the rectum the patient is anesthetized and a rectal speculum passed, the upper part of the bowel is plugged with gauze, and then, under the guidance of the finger, a specially devised hook with graduated stems is passed into the prostate to steady it. The prostate is then cauterized with a Paquelin or galvano-caustic over the extent required. The operation only lasts two minutes. The bowels are kept confined for a few days, and a catheter kept permanently in the bladder for some time. On the sixth or seventh day a purge is given, and at the end of ten or twelve days the catheter is removed, and the patient can urinate by himself. The patients were fifty-six, sixty-two, seventy-four and seventy-eight respectively, and had suffered from prostatic disease from three to five years on an average. In each case cauterization *per rectum* not only speedily relieved the congestion, but caused a notable diminution in the size of the prostate. The author believes this method to be superior both in its immediate and remote effects to castration or excision of the vas deferens.—*British Medical Journal*.

DEGENERATIVE GASTRITIS.—Hayem (*Sem. Méd.*, October 30, 1896,) describes two varieties of degenerative gastritis, the fatty and the inflammatory. Inflammatory degeneration of the gastric epithelium takes the form of serous or albuminoid infiltration. The former is characterized by the interposition of clear spaces between the epithelial cells; the latter is constituted by a genuine necrobiotic process. Sometimes the epithelial, and more particularly the adelomorphous, cells assume a regular form (granular disintegration, coagulation necrosis of Weigert), after which they

become absorbed; at other times the epithelium undergoes a peculiar change, a kind of lamellization which Hayem describes as an epidemoid condition. In addition to granular and epidermic necrobiosis there is also a chemical necrobiosis observed in subjects who consume alcohol, absinthe, etc., in excess. This shows itself under granular or transparent forms. In the granular variety the epithelial cells form small corpuscles in which neither nucleus nor protoplasm can be distinguished; this variety is met with in alcoholic subjects. Transparent necrobiosis is characteristic of those who consume excessive quantities of absinthe, and in some cases the transparent changes to a vesicular condition. The above changes should be distinguished from genuine sloughing which may be met with in the stomachs of alcoholic subjects. The different varieties of degeneration are observed chiefly in patients who have died of infectious diseases, and in confirmed alcoholics. Bacteriological researches carried on by Lyon show that a certain part is played by microbes in their production. In one case spirilla were detected in the cavity of the stomach; in another microbes were found in the intertubular connective tissue.—*British Medical Journal*.

THE ADMISSION OF WOMEN TO UNIVERSITIES IN AUSTRIA.—In the budget committee of the Austrian Reichsrath on November 7th, the minister of instruction, Baron Gautsch, made a statement to the effect that the government was preparing legal measures for next year to admit women to all faculties of the universities, except that of theology, and also to grant to the women who have obtained medical degrees at foreign universities the right of practicing in Austria after having undergone an examination.—*British Medical Journal*.

A MEDICAL DEFENSE SOCIETY.—The editor of the *Lancet-Clinic* calls for the foundation in Cincinnati of a medico-legal society, which shall defray the expenses of any of its members who may be sued for malpractice. The suggestion is called forth by two vexatious and iniquitous suits recently brought against Cincinnati physicians, and also by the editor's personal annoyance in the manner of libel suits brought to discourage him in his fight against quackery.

DEATH AT ONE HUNDRED AND EIGHT YEARS.—Alexander Freeman, a negro, died at Sailors' Snug Harbor, Staten Island, on January 22d at the reputed age of 108. He was a native of New York City, and there is reason to believe that the extreme age given is not an exaggeration.—*Boston Medical and Surgical Journal*.

PRECAUTIONS AGAINST PLAGUE.—As a result of the conferences held by the Imperial board of health upon the question of the bubonic plague in Bombay, German health officials have been sent to Vienna and Rome to arrange preventive measures against the introduction of the disease into Europe.

Special Notices.

AN ADDITION TO THE TREATMENT OF NERVOUS PRURITUS.—Pruritus is so frequent a disorder, and is attended with so much suffering both physical and psychical, that although but a symptom it often assumes the importance of a disease. It is therefore of interest to note that Dr. Wannemaeker, of Ghent (*Belgique Medicale*), who has recently written an instructive article on the pathology and treatment of pruritus, has suggested a new remedy for obstinate cases of this affection. Starting out with the idea that carbolic acid taken internally seems to act directly upon the phenomena of pruritus, he has, in addition to the appropriate local and dietetic treatment, for some time made use of salophen which is a combination of salicylic acid and acetylparamidophenol. Aside from a few failures this drug has yielded some results which in the author's opinion are very encouraging, and some which are very suggestive. Whether the favorable influence of salophen is attributable to the anti-arthritic action of its salicylic component, or to a sedative effect upon the nerve terminals, or to that of an antitoxin remains questionable. The cases cited as illustrations of its efficacy as an anti-pruritic comprise prurigo, psoriasis in a gouty subject, pruritus in diabetes, eczema in a gouty person, and chronic urticaria occurring in attacks. The dose was usually large, ranging from four to five grams daily. In summing up his results the author concludes that in certain conditions which can not as yet be defined with precision salophen offers a resource which should not be neglected by the physician who is anxious to relieve the unfortunates whose lives are made unbearable by such obstinate and painful pruritus.

NERVOUS PROSTRATION.—My son, aged twelve, had been growing nervous over the shock of his brother's death, and seemed to derive no benefit from any remedies used in his case. Had him to the sea shore, change of surroundings, and every thing that could be done for his benefit, he still grew thinner and worse all the time. I put him on Celerina, and had marked benefit before the first bottle was used, and he has almost entirely gotten over it with the help of another bottle I got for him. I consider it a very nice and efficient nervine, just the thing for the children and nervous and delicate persons, where there is great prostration. I shall use it freely.

N. P. FRASSONI, M. D., Moosic, Pa.

I HAVE found Cactina Pillets useful in cases of functional disorders of the heart. One lady with anemia and a very rapidly beating heart (after moderate exertion) has felt obliged to use the Pillets daily. They have steadied her heart, relieved her nervous anxiety, and have done her much good.

C. H. BROCKWAY, M. D., Worcester, Mass.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XXIII.

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No. 7.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE CORRELATED PROFESSIONS.

The Doctorate Address of the Medical Department of the University of Louisville,
Session of 1896-97.

BY J. M. BODINE, M. D., DEAN,
Professor of Anatomy in the University.

The most auspicious achievement of science is the correlation and conservation of forces, or their equivalence and persistence. It is found that the secret of the universe is the correspondence of a multiplicity of effects with a simplicity of causes. Things once thought to be imponderable forms of matter are discovered to be simply force changing its mode of manifestation; first into motion, heat, light, electricity—these in turn severally transferred back into motion. Applied to the learned professions—divinity, medicine, law, and pedagogy—all are remedial, each a mode of manifestation. Divinity is soul-healing; medicine is the sanitation of the body; law is justice applied to the righting of the ills of individuals, and pedagogy is the co-ordinating of the faculties of the mind.

The four are addressed to the health of manhood. Sin is a hereditary family disease whose opposite is holiness, or wholeness of the spiritual faculties and forces. The name religion (*re-ligo*, to bind again,) implies that its office is to repair the broken. Injustice or wrong is the malady which invades the equities of society. Physical disease is the disturbance of the organs and functions of the body, whose antithesis is

health. Ignorance and superstition are mental foes, opposed by education.

The four callings are therefore correlate, co-ordinate, and conservative. The force they furnish, in some of its equivalents, is always preserved, and results in the endless phases in the cycle of life that ever revolve back into being and complete the activities of a vital universe. Nature achieves its ends not in a series of straight lines but in a series of circles.

The professions have relations to the health of manhood, hence to every thing into which human energy is distributed. All are co-operatively philanthropic. No one can choose either, simply and solely, as a means of livelihood or of selfish distinction. Essentially humanitarian, neither promises riches nor rank. If these are their product the rewards are incidental, phenomenal, and well-nigh accidental. He who for pelf or power adopts either is generally a candidate for disappointment, and unworthy of the honors of professional life.

The counterfeits of the four professions are pharisaical priestcraft, empiricism, pettifogging, and pedantry. Priestcraft may grow rich on stipends extorted through fear; empiricism may fatten on the conceits of disordered imaginations and sham pretenses solvent in catholicons, pelleted in panaceas, and paraded in boastful advertisements; pettifogging may rob clientage by dusting the eyes of litigants with technicalities and entailing them in the delays of courts, and learning-mongers may profit by the bottled waters of the Pierian Spring.

The true preacher, the honest doctor, the righteous lawyer, and the skilled school-master hold no beneficial prescription by right of inspiration or of discovery, of government patents or of mental mysticisms. What any one knows is the common property of all, and is freely dispensed to sufferers without regard to proprietary profit and pre-emptive selfishness. Of course, each must be supported by the beneficiaries of his skill, but neither may rightfully refuse the relief he can afford the afflicted because the pay is inadequate to the service rendered. Each, too, must hold himself for helpful ministry without drawing interprofessional lines. It would be for humanity's benefit if these vocations could concert exchanges of service.

The minister might serve medicine by transporting some of his prelections to the amphitheater of the medical college; the lawyer might aid the equities of the social organism by descanting upon jurisprudence to theological students in its relations to human brotherhood; the

physician could do noble service by mounting the pulpit and instructing the pews upon the laws of sanitation, diet, and exercise, the violation of which from ignorance being the cause of much vice and crime; while the teacher could profit by lessons in mental physiology, the athleticism of mind, and the equilibrium of body and spirit.

In fact the four are mortised into each other, and by this commune and commerce each contributes to the partnership of man-healing, for which ministration they stand together.

Of the vocations named I recognize Medicine as the most philanthropic, because the most secluded and privatory. The preacher addresses congregations when people are in their best moods, as well as their best clothes, on a day consecrated to rest and worship, when the competitions of business are suspended and the rivalry of selfish interest is in abeyance, and in a place invested with sanctity and fraught with fragrant memories—baptism, marriage, funerals—three events that cling closely to the heart and which hallow the home. The lawyer often speaks to crowds under the interest and inspiration excited by a pending verdict or judgment. The teacher has about him youth from scores of homes, who report and repeat him, and who, if successful in life's career, do him public honor. But the doctor performs his work in the silence and seclusion of the sick-room, and oftentimes renders his best service among the lowly, too poor to reward him with money, and without an opportunity to fill the trumpet of fame with their laudations. Much of his science and skill is executed in the night when the world is wrapped in slumber, and only faint tapers flicker in the chamber shadowed with suffering. His eye must look on scenes that make it swim in tears of sympathy; his ear is pierced by the cry of agony, the groans of the dying, and the wails of the bereaved. He is doomed to see much of "love's labor lost" when his remedies fail, his skill is baffled, and remorseless disease refuses to relinquish its grasp though fought by science gray with approval. Often he is rewarded by ingratitude, disobeyed by nurses and patients, interfered with by empiricism, and prosecuted by law. None make so large contributions to charity. He must at all seasons answer, without respect to pay, and frequently must give of his own scant substance to afford the remedies and diet poverty is unable to supply.

Then no profession has so many votaries of equal attainments. The mass of physicians rise to the table-lands of the profession, and on this equal plane render it well-nigh impossible for one to ascend into a peak

of fame. Our profession is tethered by an ethical code holding its members to a common center of honor. The lawyer may annex a realty, or patent business, or collecting agency; the preacher may teach or practice medicine; the teacher may solicit insurance or sell books, but the physician must abide by his calling strictly.

Practice is often slowly gained, and when once secured can not be well-abandoned. It is difficult for him to move to greener pasturage and wider range. An Abernathy may be cribbed and confined to a village or country practice, who, with a broader field or more favorable environment, would have risen to metropolitan or cosmopolitan fame. One error in diagnosis may overturn a pyramid of successes. He may not bulletin his skill, and when assailed is denied the privilege of public defense. The charlatan, by a resort to narcotics, soothing pain while disease pursues retreating life to its last citadel, cheating the hopes of the patient until despair reveals the fraud and death ends the imposture, like storm-beaten doves fly for windows and beat out their lives against the unyielding glass; itinerant pretenders, armed with the testimonials of unthoughtful clergy, captivating credulity with magnetic tractors and plasters; unscrupulous druggists, adulterating prescriptions and palming off patent medicines—these may reduce his science and skill to zero and “freeze the genial currents of his soul.” Such disabilities render medicine a heroic profession.

After forty-three years of professional experience permit me to speak of some things that impress me. Sympathy and gentleness are requisites for those who wait on suffering, and these graces should be assiduously cultivated by physicians. A cheerful manner disarms fear and inspires hope. A soft voice, a gentle look, go far to encourage patience.

We are not called to be stoics that we may have fortitude. Despise not the plaint of sufferers and the anxiety of friends. While disdaining flattery to raise false hopes show confidence in your skill, trust in the recuperative powers of nature, and strengthen the will of your patient. One of the specious temptations to those whose occupation subjects them to see frequent suffering is to grow so familiar with it as to suppress sympathy. Hence the need of guarding against hardening the sensibilities and acquiring the stoical temperament.

Another danger is to surrender to the sway of the senses, and to esteem man an automaton of organs, a constituency of chemical elements, and to lose sight of that personal *ego* which differentiates each individual from every other.

Study the personality of your patient, as it is manifest in heredity, environment, education, and mentality, and seek to know what belongs to him that is not common to bones, muscles, and nerves. Scorn not the medicine of the mind.

The physician should be scrupulous to preserve in his patient the element of hope, and to employ that tact conducive to the production of the best conditions for the afflicted.

Tact is not lying. Absolute truth, modified by the law of preservation, when mercy is the motive, should not be classed with malicious deceit. The physician may wear the domino of cheerfulness when his heart is heavy with despond. The effort of a drowning man to catch at a straw should not lead to the snatching from him of so frail a buoy. The effort to grasp may bring him to foundations in shallow water. The principle of mimicry as a means of self-preservation is widely employed in nature. Insects are so made to resemble the bark of trees or the grass that the eye does not distinguish them as separate. The Creator made them thus to deceive, that they might in the struggle for existence have protection from their enemies. A covey of quails is flushed at your feet, which you would have passed undiscovered but for the faithful setter that has posed, statuesque, awaiting the word to charge and lift them from their covert as a quarry for your mark. The polar bear is as white as the snow desert, his fur in perfect correspondence with his environment. The adder contracts and conforms to its hiding place as a foot approaches, but, when detected spreads out to warn with kaleidoscopic colors. The Bushman assumes the shape and garb of a shrub to snare or escape his foe. The Tibboo of the desert shrivels into a moveless mass, hoping to be confounded with the cones of basalt amid which he lurks. Is not this the strategy of instinct for safety? Were not the pitchers, lamps, trumpets, and shouts of Gideon's three hundred intended to deceive the Midianites as to their number? Does not the angler with artificial bait lure the finny beauties to his feather-concealed snare? If the God of Nature created the tree-toad to so simulate the moss-mottled bark as to be taken for it; if He made the marsupiaë to counterfeit death that they might not be molested; if He taught the savage to pantomime bush and basalt; if He inspired Gideon to the ruse he practised to magnify his chosen braves—may not man, from benevolent motives, imitate their tact without violence to truth?

Exigencies arise which warrant merciful disguises, and some deceptions labeled "white lies" may wear the color of tact. In dealing

with nature the mind must be on the alert to seize all her conditions, otherwise we soon learn that our fancied fidelities are out of correspondence with mercy. Christ did not disclose all His truth to His disciples, because in their elementary condition they could not then bear to hear them.

No one is fit to die who is not fit to live. The patient who is indifferent to religion, in prospect of speedy recovery, is not apt, *in extremis*, to make a right preparation for death. If an insurance policy taken while death was impending would be invalid, we may question that concern excited by the presence, real or supposed, of the dread Apollyon.

It can not hurt a patient, in his sound mind, free from narcotic perversion, to be counselled by his spiritual adviser, but no coign of vantage should be taken founded on the fear of impending death.

Candor and co-operation should conspire in the doctor and clergyman, and consultation is as rational as that indulged in a crisis, when a brother physician is called for a comparison of judgments and a consensus of treatment.

Should a physician relegate to a clergyman the office of informing the doomed of impending fate, he should not counteract it with illusive hopes, thus cowardly seeking to evade the consequence of unwelcome news.

My plea is for co-operation because of the co-ordination of the professions. I trust I have made my idea sufficiently clear without further elaboration.

Young gentlemen, I reckon it among my life-honors that it is my privilege to give you final counsel as you go forth from your preceptors to put in practice the wisdom and skill they have imparted. Your instructors have but seeded your minds. Fertilize, by thought and reading, these germs lest they lie dormant and never fruit. If you merit the degree just conferred upon you, you accept your elect profession as a bride jeweled for her husband, with fragrant orange blossoms twining her brow, ready for the honors of espousal.

Over the path you are to tread sunbeams and shadows chase each other; its dust is to be pitted with the tears of many sorrows; but, if you faithfully pursue it to the end, your dying pillow will be cheered by many grateful memories and your grave be crowned with amaranthine flowers. You commingle the treasury of mature wisdom bestowed by your teachers with the tender sympathies and buoyant hopes of youth.

In this hey-day of hope you catch from afar the gleam of silken banners waving from victor-standards, and hear the thrill of trumpets calling you to the field of conquest, and a sheaf of trophies. Ere long in dusty uniform, amid the fierceness of the conflict, with the cries of pain in your ears, you will find yourself pressed by foes while supported by friends. When with veteran scars, as the seals of a good warfare, you are mustered out, may it be your happy lot to retire with the approving well-done of men and God.

Should you live to be old, may memory, the historian, record many chapters of your courage and constancy, skill and success! May troops of grateful patients, helped by your service, flock about your easy chair to smooth the shortening path; and when, life's duty done, and sinks the flesh, with loving hands they have borne you to the tomb, may they pile above your dust a monument built of that scarlet-veined marble, quarried from their hearts, more lasting than stone or brass! We send you out with pride and expectation. Go, and be our crown-jewels!

AN ADDRESS.

The Class Valedictory of the Medical Department of the University of Louisville,
Session of 1896-97.

BY H. E. WHITLEDGE, M. D., OF KENTUCKY.

In the eager quest to realize what fate has in store for us, what of usefulness for others, and of reward for our own efforts, I have received orders to linger and speak some word of parting ere we separate to pursue our various destinies. The command, I mistrust, is received with halting obedience, for indeed it must be confessed that it could hardly be regarded as a sad lot to be numbered with the missing when required to speak from a text that each year, for ages, has been the theme of thousands. But the lover has not left off wooing because the story he has to tell is an old, old story, already repeated by untold millions. So it is not seeming that we quit the pleasant association of one of the most impressive periods of our lives without some expression of the deep-felt gratitude, some admonition to an ever nobler life, some renewed consecration to duty. And fortunate will the lot of the best and strongest of us be, if such revival and reconsecration shall not again be needed.

In every heart there is good and evil, as in every society and in every calling there is good and evil. And since we ourselves can not be perfect, it may not be unfortunate for us that we are surrounded with both good and evil. When self-love and vanity might prevent us from condemning the evil that is our own, we can discipline our lives by condemning the evil we seem to find alone in others. And, on the other hand, by praising the good in others, we can allure our own steps in the direction of all the better attributes which modesty would forbid us to dwell upon in our own conduct, even if found in our own. It is far more profitable in this age, however, and in this life, one may well say, to praise than to condemn; the martyr must always find more admirers than imitators. Still we must inquire what paths there are to travel in our medical career. Where shall our lives be cast? What example shall be made the light of our feet, and what the guiding star that shall hold our eyes enchained while journeying through professional life?

We have been told, and it fits in reasonably well with our own observations, that the medical world may be more or less sharply divided into two great camps, the one selfish and the other unselfish; the one seeking self-interest and gain, the other the advancement of knowledge and promotion of human welfare. Perhaps I should first speak of a class who belong to neither camp, who are veritable guerrillas. You will find them filling the columns of the daily press with claims of their wonderful successes. In strict truth they are not physicians at all, they are simply adventurers who find it safer to impose upon and rob the sick and suffering than to engage in the more honorable business of looting banks, of breaking into stables, or holding up travelers on the highway. Let these be dismissed; for as many States have learned how to deal with them—Kentucky, to her honor be it said, for one—so all the States will very soon, and furnish them free offices in public prisons.

The class really referred to are that part of the profession, not necessarily deficient in learning, not necessarily bad, but who have simply caught on to the commercial spirit of the age and applied it to medicine. They see people running after the guerrillas of the profession and begging to be robbed, and they ask, why shall we spare those who will not spare themselves? If we tell these people the truth, they will none of us. Then we will keep them in ignorance and play on their credulity. The world is our oyster. Such doctors love to play

upon the abnormal morbidism of their clientèles. It is strange how many physicians even love to tell how dangerously they have been sick. With many a woman the nursing of the memory of a disease becomes a disease of itself. To such a one we hear our commercial doctor saying, "Madam, you have the worse case of toothache I have ever come across, the pains you are suffering surpass any thing I have ever seen. A few hours ago you had the weakest pulse I have ever felt, but I have brought you around all right, and you need have no more uneasiness. If unripe apples have brought to another their unpleasant message, it is never colic, but the good woman or man, as the case may be, has been tided over a case of threatened appendicitis, which would have been a most severe case had it been permitted to go on. Another has been threatened with a severe case of pneumonia, which is happily averted, while another still is congratulated that an attack of third-day chills has been prevented from running into typhoid fever.

Where the pay is good frequent visits must be made, and three or four times a day the prescriptions must be changed. True, it would puzzle such a one to tell how he knew in so short a period as the intervals of his visits what his medicine had accomplished either for good or harm; but then he knows that his many prescriptions please the druggist, therefore the druggist speaks well of him. These men delight in fads. For the time they all cure. They seldom fail to give each agent of a new proprietary medicine a certificate of its great excellence, though a short year before they testified to having found an infallible cure in something else for the same diseases, which something else they now seem to have entirely forgotten. They have many other characteristics which may not now be given, as possibly a specimen might be found on close search even in Louisville. They are indeed few in any city, but they make more noise, and, say it in a whisper, they make more money than ten times their number of the true disciples of Hippocrates.

But we must not fail to mention the other class, the larger class who seek first the good of their patients, next the honor of the profession, if indeed both are not one, and then a reasonable gain. These believe it their duty to disabuse the minds of their patients of all careless fears, to enlighten those who are needlessly alarmed, to contribute their full share toward ameliorating the lot of the poor and helpless. Knowing that they themselves are fallible, they are most careful not to take advantage of the accidental shortcomings of their brother practitioners to their injury. Knowing that they alone are the auditors of their own

accounts, they are most scrupulous to have the least of these just and correct, and as soon think of gain by passing false coins upon their patients as to receive fees gained by working upon the fears of their patients and for visits known by them to be neither necessary nor demanded.

These are the men who build up the profession of medicine in honor and knowledge; they write its books, they supply the lofty example that challenges the admiration of their fellow-men. Surely you will say these are the men also winning pecuniary reward. The rule is otherwise. The general public is in a position where it must to a large extent take doctors at their own estimate of themselves, and it is surprising how far boasting and pretension will go in medical matters. And we may be sure that profitable dishonesty will never be abandoned. Leave the payment of custom duties to honor of men, and how long would it be before every honest man must cease importing? Repeal the laws against counterfeiting, and how long before no one would think of looking for an honest dollar except in the museums? Where there is immunity and a premium for dishonesty one rogue is more than a match for a hundred who are upright.

Then how is quackery to be driven from the walks of medicine, and how are the unfortunate sick to be protected in the saving of painful toil? I do not mean the quackery that fills the press, that pastes lying handbills on walls and fences, but quackery and deceit within the field—ah! too often among the censors of the profession. Only one way appears to me. Higher education makes the standard so high and its attainments so difficult that he who attains it will prize it too highly to drag professional honor in the mire. And then let the laity be encouraged to inform themselves to such an extent as to enable them to judge of medical claims. It is not with the medical profession alone, however, that this condition obtains. The counting-house edits its newspapers, while the counting-house is controlled by the advertiser. To the casual looker-on it would sometimes seem that justice, honor, honesty, and all the nobler virtues are in danger of being thrust aside by the simple question of profit and loss. In sadness and bitterness of heart we may ask, is this all that the boasted progress of civilization can bring us? Is the organization of society, designed in the beginning to protect the weak from the strong, to degenerate into a machine to help the strong to rob the weak, and to commit to the power of the coarse, the corrupt, and the designing, the generous, the liberal, and the benev-

olent? The instincts of every brave and honest heart answer "No," and tell us that there will come a time when the just, the fair, the frank, the honest, and the cultured shall be the salt whose savor shall fill the earth. So hoping, so striving, let us now go forth to our allotted tasks, bidding adieu to endeared scenes and companions of years of hopes and struggles and triumphs.

To you, esteemed professors, we now return heartfelt expression of our gratitude, most desirous that your teaching and solicitude may be honored and justified in our lives and our labors. We will strive ever to feel that your eyes, as those of our own parents, are ever fixed upon us, and that each one has in his keeping the credit of the University.

To you, people of the good city of Louisville, we must express our thanks for the effort you have made, not to permit us to feel that we were strangers in a strange land, but to make us forget that we were not sons in parental homes, and we promise that in future chapters of the history it shall be recorded that you have never regretted that we came among you. And now, to each and for each wishing abundance of success and honor in his life work, abounding opportunity, power, and disposition to disseminate happiness among his fellow-men, allow me to say the word that will no longer be denied a place on our lips.

CAIRO, KY.

A NOTE ON THE BACILLUS COLI COMMUNIS.

BY JOHN G. CASHIN, M. D.

There is probably no pathogenic bacillus more widely distributed than the bacterium coli communis of Escherich. First obtained by Emmerich in 1885 from the alvine discharges and the internal organs of cholera victims at Naples, it was thought by him to be causative of Asiatic cholera. Weisser in 1886 found the same bacillus in the soil, in putrefying infusions, and in the feces of healthy individuals; by Escherich it was found in the evacuations of milk-fed infants; by Sternberg in the blood and organs of yellow fever cadavers. The colon bacillus has been found in the intestinal tract of all mammals examined, in some of the lower vertebrates, and in the snake, frog, and lizard.

"In human pathology this bacillus plays a very important rôle. It is concerned in the etiology of a considerable proportion of the cases of

cystitis, pyelonephritis, and peritonitis, resulting from perforation. It has been obtained in pure culture from abscesses in various parts of the body, from the valves of the heart in endocarditis, from the pleural cavity in empyema," in cases of meningitis, bronchitis, etc. It has been found in the blood as the result of general infection following cystitis and pyelonephritis.

The colon bacillus has an equally wide range of pathogenic activity in the lower animals. It is the etiological factor in a fatal epidemic affection of rabbits characterized by diarrhea.

Jenson in 1892 investigated an outbreak of fatal diarrhea in calves, and came to the conclusion that it was due to the bacillus coli communis. This bacillus was found in almost pure culture in the intestinal contents, in the mesenteric glands, blood, and various organs. Calves fed with the bacillus from this source, and also those injected subcutaneously, died of septicemia. In the literature accessible to me these are the only fatal cases of colon bacillus infection in calves recorded.

In September last, with Dr. Eisenman, of this city, I investigated a disease among the calves belonging in a dairy a few miles from Louisville. There had been one death, and three had been sick about ten days. The symptoms were diarrhea, loss of appetite, fever, and rapid wasting. The three sick calves were killed, as it was apparent they would not survive, and *post-mortem* examinations were made at once. The brain, heart, and lungs presented in none of the cases any marked abnormality. The intestines were thickened, softened, pale, and presented small dark spots in the mucous membrane resembling old blood extravasations. The mesenteric glands were enlarged, some of them measuring an inch in thickness. In two cases three or four large glands had been converted into pus sacs. The liver was pale and studded with small, grayish-yellow, irregular smooth patches not elevated above the general surface—the identical appearance of the liver met with in chronic colon bacillus infection in the guinea-pig. The kidneys were pale. In one of the cases the pelvis of a kidney contained a few drops of pus; bladder healthy.

The heart, spleen, part of the liver and kidneys of each calf were removed, placed in sterile jars packed in ice, and brought to the laboratory for bacteriological study. From the livers, the enlarged mesenteric glands, and from the kidneys the colon bacillus was obtained in pure culture in all three of the cases. In the heart blood it was

discovered in one, and in one case in the spleen. The bacillus when isolated was highly motile, but the cultures after the third or fourth renewal have no independent movement.

It may be conceded, I think, that these were cases of infection by the bacillus coli communis.

LOUISVILLE.

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated meeting, Friday, February 5, 1897, Dr. S. G. Dabney, President, in the chair.

Exhibition of Pathological Specimens. Dr. Ray: This eye I removed three days ago from a boy sent to me from Indiana. The eye was injured by the explosion of a cartridge. The eyeball was collapsed, and a large wound took in the entire circumference of the cornea. I saw there was no chance of saving the eye, but from the history I could not determine whether or not there was a foreign body. I sent the boy to the infirmary and removed the eye. The eyeball was still collapsed, and I remarked that I thought the missile had gone entirely through it, basing it upon the fact that the eye did not regain its normal shape after the injury. I found upon enucleation that the missile had gone entirely through the eye and lodged in the apex of the orbit, from which place it was removed.

Dr. F. C. Wilson: This is a specimen of worms of some species not known to me, brought up about ten days ago by a man about thirty years of age. He had been troubled more or less for a year with nausea and vomiting. Placed under a magnifying glass the worm is seen to have a distinct alimentary canal. He told me that he had thrown up that day about a double handful of these worms.

Dr. S. G. Dabney: The eye which I exhibited at the last meeting has been examined microscopically. The diagnosis is sarcoma.

Dr. J. M. Ray: I have seen several cases like that reported by Dr. Dabney, and have removed three eyes presenting growths of this kind.

Dr. Cartledge: Is it not well in these cases to remove more tissue than in ordinary enucleation?

Dr. Ray: As long as the growth is confined to the interior of the eye I do not think it is necessary to remove more than the eye, but if

it has extended beyond the orb sclerotic it is well to go wider and take out more of the tissue of the orbit.

Dr. Cartledge: My query was suggested by my experience with sarcomata in other parts of the body. It seems to me the general surgical indication would have been to remove the entire contents of the orbit, but in this case the eye only was removed. It would add little to the danger and would be more perfect surgery.

Dr. W. L. Rodman: In Dr. Dabney's report of this case I understood him to say that tumors in this situation did not as a rule recur locally but by metastasis in other organs, particularly the liver.

Dr. Ray: The consensus of opinion is that if the eyeball alone is removed there is no more danger of local recurrence than if the entire orbit was cleaned out. If all the orbital tissue is removed you make a very unsightly appearance.

Dr. Cornelius Skinner presented photographs of a unique case. The patient had had a tumor on the back since birth. At that time it was small, and resembled a birth mark. Through childhood and up till five years ago the tumor enlarged slowly; since that time, however, growth had been quite rapid. It measured when the patient presented herself eighteen inches in length, seven inches in width at the widest part, and five inches at the narrowest portion, and was attached above in the interscapular region. The tumor was not painful at any time, but annoyed her considerably. After squeezing out as much blood as possible with an Esmarch bandage the growth was amputated. The narrow pedicle by which the tumor was attached contained several large blood-vessels and there was severe hemorrhage. The patient made an uneventful recovery. The tumor was soft, but not lobulated; it weighed after removal eight pounds. Unfortunately a microscopical examination was not made.

Dr. Simpson: I saw the patient at the time Dr. Skinner operated. It was certainly a very remarkable case. In color the tumor was a little darker than the skin of the back, and was peculiar in being marked transversely by the corset strings. There was nothing especially noteworthy about the operation except the amount of hemorrhage.

Dr. Rodman: This is a very unusual case. I believe myself, on account of the size of the tumor and its location in the interscapular space, that it is a fibrolipoma, more largely a lipoma than any thing else. It is to be regretted that a microscopical examination was not made.

Dr. A. M. Cartledge: This could be only one of two or three things. First, a lipoma with a large amount of fibrous tissue; second, its congenital character and the corrugated surface suggested that it might be a sarcoma. All lipomata that I have seen have been very smooth.

Dr. J. M. Ray: I saw a gentleman last August with the following history: He is a lawyer, and had been in the habit of speaking in public and before juries for many years. Some time last spring, in a speech of some hours, he noticed an impediment in his speech. Several years ago he had syphilis and was treated until he thought he was well. The impediment in speech was preceded by twitching of the muscles about the face, then of the neck, followed by spasm of the larynx, lasting until he almost became unconscious. He consulted his family physician, who told him possibly it was his old trouble, and advised him to go to Hot Springs. He had two attacks at Hot Springs, but after a time was much improved. During the recent campaign he went on the stump and these attacks came on again, often occurring daily. While examining his throat an attack came on. The vocal cords were closely approximated—in fact, the right vocal cord overlapped the left, and became tense in this position. The only reference I can find to such a trouble is a report by Knight, of Boston, under the head, Spasmodic Dysphonia. The prognosis in these cases, according to Knight, is rather unfavorable.

Dr. S. G. Dabney: I remember a case somewhat similar—a physician who had syphilis. The attacks in this case were not brought on by use of the voice, or by any cause that could be discovered. He had the spasms of the muscles of the face and neck. He subsequently died of a trouble diagnosed brain syphilis. It would seem to me that in Dr. Ray's case there is some central cause for the trouble.

Dr. J. B. Marvin: I believe there is some central trouble here. There may be such an affection without involvement of the arm and leg centers. If it was confined exclusively to the larynx I would consider it functional, but as it starts in the face, involves next the neck, and then the larynx, it would appear to point strongly to some central lesion.

Dr. J. M. Williams: I desire to report to the society for discussion the following case of accidental perforation of the colon in the manipulation of introducing the long Kelly tube, or, more properly, the colonoscope. Mr. W., age fifty-seven, history of syphilis acquired twenty

years ago, with practically no constitutional treatment; has incipient locomotor ataxia. Complains of constant pain in the rectum and lower bowel. Examination of anus and rectum—digital and ocular—both negative. I then decided to use the colonoscope to inspect the colon from the splenic to the sigmoid flexure. This being agreed to, the bowel was thoroughly cleansed from above and by colon douches for two days. The patient was placed under an anesthetic, and on the operating table, and in the knee-chest position, the upright crutches being used, with a broad bandage passed around the groin. The instrument with the obturator, as you see here, to protect the bowel, was then introduced, being careful to avoid injury by rotating cautiously over the coccyx and promontory of the sacrum and using as little force as possible. The instrument passed easily, and no obstruction was noticed; the instrument being inserted its full length—fourteen inches—the obturator was withdrawn and the head mirror used, with reflected light. Looking through the tube I saw the shining peritoneal surface, which could not be mistaken for the mucous membrane of the gut. Recognizing that the bowel had been perforated, I at once told the nurses and assistants to prepare for an abdominal section. The instrument was withdrawn slowly, with the light constantly on the exposed area so that I might locate the point of rupture. The colonoscope had been withdrawn five inches when the gaping wound in the colon collapsed in front of the tube. I then removed the instrument entirely, and turned the patient on his back, scrubbed, shaved, and thoroughly prepared the abdomen for laparotomy, knowing that the injury was nine inches from the anus. I decided that the perforation must be just above the sigmoid, and therefore made the usual lateral colotomy incision immediately over the colon. With two fingers in the incision I searched for the colon, and almost the first spot I touched was the site of the injury. The bowel was brought up and examined, with the result of finding an ulcer immediately within the perforation, and about the size of a quarter. The bowel was carefully sutured with two rows of fine silk, and the adjacent part lightly irrigated, and the bowel dropped back in place. The abdominal wound was closed with interrupted silkworm gut sutures without drainage. This evening the man seems to be doing well, aside from occasional nausea and vomiting from the anesthetic.

I will say that this is the seventh time I have employed this instrument, and until I met this case never had an accident; and indeed

little or no trouble in its introduction since using the knee-chest position. This accident, however, goes to show that the danger of perforation must always be considered, and that one unskilled should never attempt its use. The ulceration in this case was in all probability syphilitic. I shall watch this case closely and shall report the outcome at the next meeting.

Dr. W. L. Rodman: I have nothing further to say in regard to the case. With every point in it I fully concur. I remember a somewhat similar accident in the practice of a gentleman in Frankfort, Ky., fifteen years ago, in a case of dysentery with an irritable stomach. He was feeding by the rectum and used a soft rubber catheter. At the *post-mortem* I found milk and other material which had been used for feeding free in the peritoneal cavity. I think all tubes introduced into the rectum should be used cautiously. All hard tubes are more or less dangerous.

Dr. Cartledge: Treves took the position, several years ago, that it was impossible to introduce the old hard tubes beyond the sigmoid flexure; and as proof of this he cited experiments made upon the cadaver. In every case the tube went into the peritoneal cavity.

Dr. J. M. Mathews: Soon after Dr. Kelly got out this instrument he invited me to see him introduce it. The patient was put under chloroform—which is the first objection to it—and with all the expertness of Kelly he had great difficulty in introducing this instrument into the colon. When it was in the colon he asked me to look through it. I did so, and must confess that although I have been in the habit of looking into rectums for many years I could see no pathology. I said to Kelly then, as I say now, that I could see no utility whatever in the instrument. It is a difficult thing to introduce it into the sigmoid or colon, no matter what position you have the patient in, just as with the old bougies of which Dr. Cartledge spoke.

What can the instrument be used for? One gentleman has said that it would be useful in ulcers in the colon. What kind of ulcers? Benign ulcers are seldom found in the colon. We must suppose, then, that the cases most suitable are due to constitutional disease. I believe in these cases the clinical history will reveal it and would call for treatment, and that we can afford the patients all the benefit of this treatment without submitting him to the risk of this instrument. It would take the most expert man in christendom to discover a small ulcer in the colon by the use of this instrument. It has been intro-

duced by one of the most distinguished men in the profession, and has been used by him two hundred times perhaps, and by many others, and therefore Dr. Williams and all of us are justified in making use of the instrument, but I do not believe in it.

Dr. Williams: I take it this instrument has a place in the treatment of diseases of the rectum and colon. In the seven times I have introduced it ulceration was found twice. In a negress upon whom it was used I found two points of ulceration, the highest being about four inches up the colon. Partially withdrawing the instrument, another spot was found about two inches lower down. The ulceration in the case I report had extended deeply into the gut. Position has much to do with the use of the instrument. It is much more difficult to introduce with the patient in the Sims position than it is in the knee-chest position. I shall continue its use, and hope to report a series of cases. In answer to Dr. Mathews I will say the rupture was immediately within the ulceration. I can easily see how much more difficult it would be to pass this instrument in a colon, and the frequency of perforation in such experiments.

Dr. Wm. Bailey: I want to report a case that was of interest to me. Two weeks ago I was called in consultation to see a child eighteen months old with a history of having had broncho-pneumonia, but while recovering from that there was very marked disturbance of the alimentary canal. Measures of disinfection of the alimentary canal resulted in some improvement. Two weeks later I was asked to see the child on account of a new development in the case. At this time the liver was very much enlarged, extending three inches below the edge of the rib on the left side, and there was abscess which showed signs of an attempt to discharge through the abdominal wall. An incision was made, and on the left lobe of the liver there was an abscess three inches in diameter from which from half a pint to a pint of pus discharged. Two or three days afterward I had an opportunity to make a *post-mortem*. Besides the abscess opened there was another situated in the right lobe. There was no peritonitis, the child dying from exhaustion. My supposition is that the abscess was developed from the condition of the alimentary tract. The mother was pregnant, and had nursed the child up to the early part of the illness; later, I think, it was bottle fed.

Dr. Cecil: I would like to ask if the character of the bowel trouble partook of the nature of dysentery.

Dr. Bailey: The entire alimentary canal seemed to be involved. I do not think it would have been considered a dysentery proper. No examination was made of the discharges from the bowel or of the pus from the first abscess.

Dr. J. A. Larrabee: I think there is no doubt that the pathology given by Dr. Bailey is correct. Amebic dysentery is for some reason rare in childhood. Abscess of the liver is extremely rare in those cases that we suppose to be true dysentery. The connection early between the broncho-pneumonia and the bowel trouble would seem to show the bacterium coli was at work in the lung very early in the case, for it is now known that the bacillus coli communis is frequently the cause of bronchitis. Christopher, in a recent article, has shown that by treatment of the alimentary tract the bronchial symptoms are held in abeyance.

Dr. Cecil: I have nothing to say except in the line that Dr. Larrabee has stated. I recognize that abscess of the liver is rare in children. It occurred to me that possibly the intestinal disease was dysenteric. Abscess of the liver is much more common in countries where amebic dysentery prevails than with us. So far, only a few cases have been recognized in this part of the country.

I have a case, in child practice, that was of interest to me—a baby four weeks old, the first child of a rather delicate lady. There was nothing of interest in the confinement nor in the first three or four weeks of the child's life. I was called to see the mother for some slight ailment, and was asked to see the child on account of a slight cough, which I regarded as a bronchial affection and gave a cough mixture. This was on Wednesday, and I heard nothing further of the case until Friday. The child had a cough, which was like an ordinary bronchial cough, the respiration was of the Cheyne-Stokes type. The cough gradually lessened, and in forty-eight hours had ceased entirely, but the respiratory condition became worse, so that the child was now decidedly cyanosed. There was no evidence of central lesion, except the type of respiration, that we could discover; the urine was normal but diminished in quantity. The treatment which I adopted was entirely symptomatic, and consisted of $\frac{1}{8}$ gr. strychnine and about the same quantity of nitroglycerine every two hours. On the Saturday night following I thought the child was dying, and I tried as an experiment the inhalation of nitrate of amyl, using nearly a dram in the course of five hours. We seemed to gain a little with

each exhibition of this drug; the circulation began to improve, the symptoms gradually subsided, and on Monday the child was very much better and in a few days entirely well. I report the case for the reason that we all know what the Cheyne-Stokes respiration means in a prognostic way.

Dr. Larrabee: The prognostic significance of Cheyne-Stokes respiration does not carry with it the same weight in childhood that it does in the adult. In the infant the function of respiration is irregularly performed for about the first two weeks of life. I should search for the etiology of such a case in some extraneous point, believing it to be reflex in character.

Dr. Bailey: Cheyne-Stokes respiration I have seen most typically in connection with tubercular meningitis, and in tubercular meningitis I regard it as an exceedingly grave symptom. I think in this case there must have been some irritation of the respiratory center, but not an inflammatory process. Cheyne-Stokes breathing is a very interesting phenomenon that I have seen a number of times in children. I saw it recently in a man who had Bright's disease, but without cerebral disease. It was noticed for a month or two before death, and was well-marked. I saw another case, a colored man who went about for months with the most marked Cheyne-Stokes respiration I have ever seen. Respiration in this case would often cease for a minute. I want to commend fully and cordially Dr. Cecil's treatment of the case. I think calomel would have been particularly applicable in this case, both as a cathartic and intestinal disinfectant and as a diuretic. I have seen the best results follow a mercurial purge in Bright's disease, due to its action on the kidney.

I fully agree in the use of nitrite of amyl, even in a case so young. I think a great deal of nitrite of amyl. It is the quickest thing in medicine; before the third inhalation you can notice the effect; and being rapidly eliminated it can be repeated almost *ad libitum*. We have in nitro-glycerine an effect which is not quite so quick, but more permanent. I would not hesitate again to fully carry out the treatment carried out by Dr. Cecil in this case; and in adults with such a condition I should not hesitate at all.

Dr. Larrabee: In the discussion of this case I neglected the much-deserved compliment which Dr. Bailey has paid. In the treatment of Cheyne-Stokes respiration I use a remedy which acts in a similar manner upon the heart and capillary blood-vessels, but in more permanent

manner, and that is atropine. It has been my experience in typhoid fever that the Cheyne-Stokes respiration which often precedes coma can be held off by atropine. I have the fullest confidence in atropine where there is irregular respiration.

Dr. Cartledge: I had occasion within the past year to use nitrite of amyl in cases of chloroform narcosis, and I want to indorse what has been said of it in these cases. In one case that I lost, about two months ago, the effects of nitrite of amyl were to me marvelous, and it seemed as if we would win the fight. In two other cases nitrite of amyl brought them around at once. I believe that it is the most valuable drug for use until the effect of more permanent remedies can be obtained in the sudden syncope seen during chloroform narcosis.

Dr. Cecil: If I have any regrets at all in the treatment of the case it is that I did not use nitro-glycerin in larger doses. This has been suggested by one or two articles in which the position is taken that there is no dose of nitro-glycerine in some conditions short of its therapeutic effect. Thus large quantities have been used in cases of arterio-sclerosis. In one of the cases reported a case of heart disease with arterio-sclerosis, beginning with small doses, it was gradually increased until six or eight minims were taken in twenty-four hours.

Another writer claims to have used as much as twenty grains under the same circumstances. I have seen one hundredth or one fiftieth grain produce its physiological effect, and again I have seen this quantity fail.

JOHN L. HOWARD, M. D., *Secretary.*

A GIANT FETUS.—G. Olano (*El Monitor Medico*, Lima, October 1, 1896,) records the occurrence of a female fetus, otherwise well formed, weighing 10,000 g., and measuring 68 cm. in length. The mother, a 6-para, aged thirty-nine, had had previously three normal and two premature confinements; the father, aged forty-two, was well-formed, tall, and muscular. There was non-medical and purely subjective evidence to the effect that the woman was many months past the full term. After four days of labor pains and an unsuccessful attempt to deliver by forceps the patient died, the fatal issue having been ushered in by slight convulsions. The necropsy was performed by Olano, in the presence of several of his colleagues; and the pregnant uterus was found lying to the right side with its fundus near the liver, and containing the giant fetus above referred to. It was a vertex presentation, and the various parts of the fetal body were proportionately large. The cephalic measurements are not given.—*British Medical Journal.*

Reviews and Bibliography.

The American Year-Book of Medicine and Surgery. Being a Yearly Digest of Scientific Progress and Authoritative Opinion in All Branches of Medicine and Surgery, drawn from Journals, Monographs, and Text-Books, of the Leading American and Foreign Authors and Investigators. Collected and Arranged with Critical Editorial Comments by Drs. J. M. Baldy, Charles H. Burnett, Archibald Church, Van Horne Norrie, Colman W. Cutler, J. Chalmers Da Costa, W. A. Newman Dorland, Louis A. Duhring, Virgil P. Gibney, Homer W. Gibney, Henry A. Griffin, John Guiteras, C. A. Hamann, Howard F. Hansell, Barton Cooke Hirst, E. Fletcher Ingals, W. W. Keen, Henry Leffmann, Henry G. Ohls, Hugh T. Patrick, William Pepper, Wendell Reber, David Riesman, Louis Starr, Alfred Stengel, G. N. Stewart, and Thompson S. Westcott, under the general editorial charge of GEORGE M. GOULD, M. D. Profusely illustrated. 1257 pp. Price, cloth, \$6.50; half morocco, \$7.50. Sold only by subscription. Philadelphia: W. B. Saunders. 1897.

A perusal of this work at once approves the high encomium of the London Lancet, when it says, "It is difficult to know which to admire most, the research and industry of the distinguished band of experts whom Dr. Gould has enlisted in the service of the Year-Book, or the wealth and abundance of the contributions to every department of science that have been thought worthy of analysis. . . . It is emphatically a book which should find a place in every library, and is in several respects more useful than the famous Jahrbücher, of Germany."

Higher praise could hardly be bestowed. It is not so much in the quantity of literature culled; for in this respect the undertaking has been surpassed. Its highest excellence is in the discriminating judgment displayed.

It is to be hoped the next advance will be to lay down rules of evidence by which we shall be able to judge of the probability of statements and the credibility of witnesses. Nearly all the therapeutic advance of the year is claimed for various forms of animal extracts. How shall we know how much of this we must accept without risk of being again left high and dry in confusion, as so many other friends have left us before. To our mind the presumptions of reason run counter to all these claims. It is most naturally to be expected, for instance, that bone marrow, which must act its function as an integral cell in the formation of blood, would lose that function in the process of being digested in the stomach and the complete changes gone through while being acted upon by the lymph cells and phagocytes.

Again we must discount the statements of enthusiasts, whose bias makes them always faulty witnesses. In the courts of justice positive testimony far outweighs negative; but not so in science. Taking the experience of the past as our guide, the negative testimony of a very limited number of witnesses will go far to disprove the claims of any treat-

ment. When we consider the thousands of methods of treatments that have given "good results" one year and none the next, we are not far wrong in saying the presumption is against the claims of any new treatment.

But it would be equally unwise to reject all claims made for these agents. On the best of evidence the use of the diphtheria antitoxin appears to have reduced the mortality of diphtheria by near one half; and there is favorable report and favoring analogy sufficient to encourage a most thorough trial of these agents all along the line. Only let us not be deceived.

In the light, however, of the present state of medicine we must award the highest meed of praise to this Year-Book, taken from any point of view, not the least of which is the beautiful make-up of the work both as to letter-press and binding.

D. T. S.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volume x, Diseases of the Nervous System. 859 pp. New York: William Wood & Company. 1897.

The contributors to the tenth volume of this superb series are Sanger Brown, M. D., Chicago; Joseph Collins, M. D., New York; Charles L. Dana, M. D., New York; Charles Samson Féré, M. D., Paris; Howell T. Pershing, M. D., Denver, and Bernard Sachs, M. D., New York. It embraces the diseases of the nervous system.

The names of the contributors are an ample guarantee of the most efficient treatment of the subject-matter. This is especially true of Sachs, Féré, and Dana, while Dr. Collins, though less well-known, may confidently rest his reputation upon his contribution in this volume to Diseases of the Brain.

This volume marks the half-way station of the encyclopedia, which is to consist of twenty volumes, though the ninth had to be passed over till April, the manuscript not being entirely finished. Those who had the good fortune to begin with the first issue of this, the most comprehensive medical work ever undertaken in America, may well congratulate themselves upon the wisdom of their decision. The volumes become better as the work advances, excellent as were those of the beginning. Space forbids the printing out of excellencies in detail, since they are supplied by nearly every page.

D. T. S.

A System of Practical Medicine by American Authors. Edited by ALFRED LEE LOOMIS, M. D., late Professor of Pathology and Practical Medicine in the New York University, and WILLIAM GILMAN THOMPSON, M. D., Professor of Materia Medica, Therapeutics, and Clinical Medicine in the New York University, etc. Volume I, Infectious Diseases. Illustrated. 985 pp. New York and Philadelphia: Lea Brothers & Co. 1897.

Dr. Alfred Lee Loomis, at the time of his lamented death, was engaged in the editing of a system of medicine that should embody the progress and increasing definiteness of modern medicine. Dr. William Gilman

Thompson, a teacher scarcely less eminent, was chosen by Dr. Loomis to assist him in the task. The eminent standing of the editors brought the willing co-operation of leading American practitioners and teachers, and it has thus been possible to assign each subject to an author of the highest repute in his especial branch.

This is eminently a system of practical medicine, the therapeutical sections having been made especially thorough and precise. The greater specialties, such as gynecology, ophthalmology, and the like, have been omitted as outside the domain of general medicine.

The physicians contributing to the present volume are J. E. Atkinson, John M. Byron, Warren Coleman, George Dock, A. M., Alvah H. Doty, Isadore Dyer, J. P. Crozer Griffith, James Walter, Thomas S. Latimer, William Osler, William Hallock Park, P. Gervais Robinson, William Francis Robinson, George M. Sternberg, James Stewart, William Sydney Thayer, William H. Welch, William M. Welch, Hamilton Atchison West, and James C. Wilson. The typographical arrangement has received great care, and a complete index adds to the convenience and utility of the work. D. T. S.

Deformities. A Treatise on Orthopedic Surgery, intended for Practitioners and Advanced Students. By A. H. TAPPY, M. S., Lond., F. R. C. S., Eng., Assistant Surgeon and in charge of the Orthopedic Department, Westminster Hospital; Surgeon to the National Orthopedic Hospital, etc. Illustrated with fifteen plates and three hundred and two figures, of which two hundred are original, and by notes of one hundred cases. 598 pp. Price, \$5.50. London: McMillan & Co. New York: The McMillan Co. 1895.

This volume is the outcome of several years' work at a number of London hospitals, and nearly all of the cases quoted are from the author's notebooks. Two hundred of the illustrations have also been drawn from the author's patients especially for this work. The work is thoroughly up to date, and must speedily take its place at once among leading authorities. The author not only quotes freely from leading American authorities, but gives formal expression to his indebtedness to the many admirable writers who have recorded their experiences in the Transactions of the American Orthopedic Association.

Though American literature is not without some superb treatises of home authors on orthopedic surgery, a work so painstaking, so original, so fair, and so rich in its field of experience, can not fail to meet with an extended welcome on this side the water. D. T. S.

A Text-Book of the Diseases of the Nose and Throat. By FRANCKE HUNTINGTON BOSWORTH, A. B., CANTAB., A. M., M. D., Professor of Diseases of Throat in Bellevue Hospital Medical College, New York; Consulting Laryngologist to the Presbyterian and St. Vincent Hospitals, New York, etc. Illustrated with one hundred and eighty-six engravings. 814 pp. New York: William Wood & Company. 1896.

A work on the nose and throat was recently published by the author which was intended both as a text-book and a book of reference. It was found, however, too encyclopedic in character for the use of students, and as

a result the author decided to reissue the work in one volume, eliminating those parts designed originally for reference alone. Some new material has been added and some few changes made, but in all essential features the single volume is the same as the larger edition.

In a field as thoroughly explored as that of the nose and throat, startling innovations based on actual conditions are hardly to be expected. The chief points of interest outside of a generally good execution of the author's task center in his position on disputed points. The correctness of our author's views upon such subjects may be best determined by those who have a large special acquaintance with them, but as a polemic, as a general practitioner we would decide that as a polemic he is more sound than clear.

The illustrations are profuse, illuminating every possible phase of the subject in a most satisfactory manner, the color-plate illustrations of operations about the mouth and throat being especially commendable. D. T. S.

Transactions of the American Orthopedic Association. Tenth Session. Held at Buffalo, N. Y., May 19, 20, and 21, 1896. Volume IX. 279 pp. Philadelphia: Published by the Association.

This volume of Transactions of the American Orthopedic Association shows considerable falling off in bulk as also in the membership of the Association. The quality of the contributions, however, compares favorably with those of former sessions. In no department of medicine or surgery does the work of Americans take higher rank abroad than in orthopedics. Indeed American surgeons are the leaders in this department, and the work here reported will not detract from their well-earned reputation. D. T. S.

Abstracts and Selections.

EXAMINATION OF THE BLOOD IN TYPHOID FEVER.—R. Stern (*Centralbl. f. inn. Med.*, December 5, 1896,) says that this examination has been followed out in two ways: (1) In regard to diminished or absent leucocytosis; and (2) the presence of typhoid bacilli in the blood. The latter succeeds best when considerable amounts of blood are used, since the bacilli are present only in small numbers. In two of the author's cases the positive results thus obtained were of considerable diagnostic value. Recently a new method has been introduced by Wydal, which depends upon the action of the serum obtained from the blood of one convalescent from or ill with typhoid fever. The typhoid bacilli become less motile, and tend to adhere together when exposed to this serum. The substances producing these effects have been called agglutinin, but the author thinks that paralyisin is a better name. This agglutinative effect has been noted even on the fourth or fifth day of the disease. In the cases where it was

absent at first it appeared later. The author has investigated this test in sixteen cases. He has taken blood from the finger tip and added to it a bouillon suspension of the typhoid bacillus, and then separated off the red cells by means of the centrifugal machine. When the centrifugalization is carried out a quarter to half an hour after the mixing the characteristic reaction is more marked. The disadvantage of this procedure is that an exact quantitative estimation of the effective substances in the blood can not be made, but the author has also used Wydal's procedure. The diminished motility and agglutination were seen after a few seconds, or at any rate within the hour. The capillary pipette belonging to Gower's hemoglobinometer, previously sterilized, may be used for the purpose of collecting the blood. The ninth day was the earliest time that the author applied the test with success. Abundant control experiments in other diseases were made, but gave negative results except in one case of otitis, where a slight but distinct reaction was obtained in an hour. This patient had never had enteric fever. Thus the author says that for the serum diagnosis that proportion of the serum and culture must be determined which is powerless to give the reaction with the blood serum of a patient not suffering from typhoid fever. This proportion the author found in his cases to be 1 in 100, and even 1 in 2,000. Wydal gives it as one in sixty or eighty. A negative result in the early stage of the disease must not be looked upon as conclusive, but subsequent examinations must frequently be made.—*British Medical Journal.*

NEPHRITIS DUE TO THE BACILLUS COLI.—Macaigne (*Archives Générales de Médecine*, December, 1896,) divides nephritis due to the bacillus coli into two distinct categories: (1) The more frequent, in which the infection is from below, ascending; (2) the more rarely recognized form, in which there is a hemic infection with the bacillus coli, the kidney being affected by a descending nephritis. From the latter he excludes cases where the presence of bacilli coli on the urine is merely a sign of the general infection, and where nephritis is not the chief disease. Hallé and Albarran have shown that the bacillus coli is the chief cause of ascending pyelonephritis. The author devotes this article based on three cases to the study of descending nephritis due to the this microbe. For auto-infection to take place two conditions are necessary: (1) A breach of surface on the alimentary canal; (2) increased virulence of the bacillus. Diarrhea satisfies both these requirements. The breach of the surface may be in the mouth, and in one case followed a sore throat. Clinically and pathologically, descending nephritis due to bacillus coli is met with in two forms: (1) The epithelial; the symptoms are those of ordinary acute nephritis, and has three degrees of severity, slight, intermediate, and grave. Recovery usually occurs. The histological appearances are those of glomerular and tubal nephritis combined. The bacillus coli is found in the urine. In this form the epithelial lesions are due either to the direct action of the micro-organism or to the

effect of the toxin produced by it. (2) The suppurative form. There is fever, edema, and albuminuria and casts, as in acute nephritis, but the amount of urine passed is not diminished; there is pyuria, and the disease resembles pyelonephritis or primary suppurative nephritis, but the ureters, etc., are healthy. Microscopically, the miliary abscess contains the colon bacillus. The abscesses may form as the result of emboli lodging in the glomerular vessels or on the intertubular vessels or—and to this point the author draws special attention—as the result of masses of the bacilli inside the tubules of the kidney. In the latter cases the abscesses are peritubular and not perivascular. There is glomerulitis and intense periglomerulitis and small cell infiltration. The renal tubules are stuffed with masses of the bacilli coli.—*Ibid.*

EDEMA OF THE EYELIDS IN GRAVES' DISEASE; THYREOIDECTOMY.—Dr. J. Arthur Booth, of New York, read a paper (American Neurological Association) on this subject and exhibited the patient who had been operated upon. He drew the following conclusions: (1) Slight degrees of edema situated in the extremities were of common occurrence in Graves' disease, but this symptom limited to the eyelids was very seldom seen. (2) In distinguishing these various forms of swelling it was necessary to be guided by the position and degree. If situated only in the face and upper limbs, or if asymmetrical, it was entirely of nervous origin, and it might be so if it affected the feet, but it was only slight and temporary. (3) These dropsies were evidently of vasomotor origin and were probably due to paralysis of the vaso-constrictor nerves, and were manifestations of peripheral neuritis. (4) Limited to the eyelids, edema might be due to paresis of the orbicularis. If this was true, however, it was strange that it was not met with in other palsies of this muscle. (5) Thyreoidectomy, carefully performed and by one cognizant of the occasional complications, was not such a dangerous operation as was generally believed. (6) From operative interference in Graves' disease we might expect improvement in the rapidity of the pulse, cessation of the disturbing attacks of palpitation, and cure of many of the subjective phenomena.

Dr. Starr expressed the opinion that operations in these cases were not always safe, the percentage of death being twelve out of a hundred and eighty-seven cases. Sudden death had occurred soon after the operation. It had not been due to surgical shock, but to the absorption of thyroid juice during the operation, which overwhelmed the system by its toxic properties. The operation of thyreoidectomy should not be done indiscriminately.—*New York Medical Journal.*

THE COMMENCEMENT OF DIABETES MELLITUS.—Loeb (*Centralb. für innere Medizin*, No. 47, 1896,) points out that little is known with respect to the earliest stage of diabetes. When the patient first seeks medical advice, it is generally on account of some definite symptoms, and the urine is then

generally found to contain a large amount of sugar (one per cent or more). The patient often states that he has suffered from the symptoms of the disease for a certain definite period only. But the author records cases which show that these statements are often unreliable, and that the disease may first begin as a slight and temporary glycosuria. In one of Loeb's cases the urine contained 5.3 per cent of sugar, the specific gravity was 1038, and there was a history of thirst of only fourteen days' duration. But the author happened to have examined the urine two years previously while the patient was suffering from an attack of intercostal neuralgia. At that time 0.25 per cent of sugar was present, but this had disappeared at the end of nine months. Hence, long before the well-marked symptoms of diabetes had developed, there was a diminished power of utilizing carbohydrates in the system, and slight temporary glycosuria as a result. In a second case of diabetes the urine contained 7.9 per cent of sugar, and had a specific gravity of 1042. The patient stated definitely that symptoms of the disease had been present for four weeks only. But the author happened to have made an examination of the urine five months previously, and at that time had found traces of sugar present. In a third case of diabetes the urine contained 4 per cent of sugar. The author had found traces of sugar in the urine two years and a quarter previously. In a fourth case, for four years and a quarter the author has found trace of sugar in the urine from time to time. On one occasion the sugar excretion reached 0.38 per cent. The author concludes that in a great number of cases of diabetes, for a long period—often for years—before a large quantity of sugar is excreted, and before the characteristic symptoms of the disease appear, small quantities of sugar are excreted in the urine temporarily. During this period the patients are quite well, and, having no cause to consult a medical man, the opportunity of detecting this slight and temporary glycosuria seldom occurs. The author, of course, admits that there is not this gradual onset in all cases. He admits that there are cases which are very acute, cases in which a large quantity of sugar is found in the urine from the first. The author thinks that the temporary occurrence of a small quantity of sugar in the urine ought not to be regarded lightly. The cases above recorded show that sometimes it is followed by severe diabetes. On the other hand, some of the cases recover completely, and the author adds an example of this—a case of slight and temporary glycosuria—which he has followed for four years and a half, and which has finally ended in recovery.—*British Medical Journal*.

MORPHINE AS AN ANTIDOTE TO CYANIDE OF POTASSIUM.—The *Presse médicale* for November 25th states that, in order to kill a dog which had been experimented on several times, Dr. Heim (*Münchener medicinische Wochenschrift*, 1896, No. 37,) injected under the skin of the back six grains of morphine, and after a short period of excitation the dog slept. At the end of an hour, however, the dog was still alive, and the author, in order to

hasten the animal's death, administered a subcutaneous injection of ten cubic centimeters of a 3.3-per-cent solution of cyanide of potassium. The effect of this injection, says the author, was altogether surprising; the dog awoke and became very lively. This condition persisted for some time, and then the dog was seized with convulsions and died an hour and a half after the injection of the cyanide of potassium.

It is evident, says the writer, that this drug neutralized the effects of the morphine, and that the morphine retarded the toxic action of the cyanide of potassium.

In order to explain this fact, the author made a series of experiments on mice. After establishing the minimum fatal dose of morphine and of the potassium cyanide he proceeded with the experiments, which consisted in treating the animals that had been subjected to injections of potassium cyanide with morphine, and those that had been subjected to fatal doses of morphine with potassium cyanide. With a few exceptions the animals could always be saved. The morphine seemed to be the antidote to the cyanide of potassium, and *vice versa*.

With regard to the mechanism of the neutralization of these two poisons the author thinks that, owing to the influence of the iron in the blood, which is an alkaline medium, there are formed Prussian blue and an oxide of morphine.—*New York Medical Journal*.

TREATMENT OF APPENDICITIS.—McBurney (*Medical News*) points out that there is no medical cure for appendicitis, even though some cases recover without operation; and while he considers appendicitis a surgical disease, yet operation may not be necessary in every case. The true cause of this affection is probably a stoppage of the drainage from the appendix to the colon, and preliminary treatment is often worse than useless. The opium treatment relieves pain and discomfort, but entirely masks the symptoms at a most important time, for it is in the first twenty-four hours from the beginning of the attack that we can decide not only as to the diagnosis, but as to the probable course and result of the case. If in five or six hours there is no increase in urgency the patient is not in immediate danger if kept at perfect rest in bed; if in twelve hours there is still no increase in the severity of the symptoms the patient should soon begin to improve. On the other hand, if the urgency of the case has steadily increased in twelve hours from the time when the diagnosis was made, an operation will probably be called for. After two attacks a patient is sure to have a third, and each attack renders operation more difficult and dangerous. All the advantages lie with operation between the attacks. In an operation during an acute attack the prognosis is worse. In operating between the attacks it is rarely safe to do so in less than two weeks after an acute attack. McBurney was formerly more willing to operate during the attack than he is now. The chief cause of death is delay of one sort or another. In abscess cases the sooner we operate the better.—*British Medical Journal*.

WHAT BECOMES OF LARGE DOSES OF OLIVE OIL.—The ultimate disposal of olive oil when given in the enormous quantities frequently heard of was until recently unknown to me, but is just what consideration of the circumstances would lead one to expect. That the free and available alkalies of the intestines are all seized upon after the fat splitter, steapsin, has separated the esters into their respective radicles is not to be doubted. Such a large amount could hardly be saponified, emulsified, or absorbed, however excessive amounts of other classes of foods being refused by the economy. That all of it followed the conventional path is not a reasonable proposition, and a recent case enabled me to determine its fate in at least one instance. A *confrère* had a case of hepatic colic in a victim of chronic malarial disease, and gave two pints of olive oil. Subsequently his attention was directed to some peculiar masses in the vessel. He brought them to me, and I found them to be about the size of marbles, irregular shaped, translucent, of the consistence of cheese, and green in color. The history giving me the cue, I found they were glyceryl palmates colored with oxidized bilirubin. I saponified them with boiling sodium hydrate, precipitated one tube with artificially hard water, and salted out another, getting a hard soap. The gall stone was found, and proved to be deposits of cholesterin crystals around an organic nucleus, presumably of mucus or epithelium. The denser palmates were evidently outclassed in the race by the more unstable oleates and came through unchanged. A close analysis of all the feces on an exclusive fat diet of determined composition would be most interesting.—*A. T. Mitchell, M. D., in New York Medical Journal.*

PYRAMIDON.—Filehne (*Berl. klin. Woch.*, November 30, 1896,) relates his experimental and clinical investigations into the use of this dimethyl amido-derivative of antipyrin. Pyramidon is a yellowish-white crystalline substance, soluble in water in the proportion of one in ten. Its action on the nervous system is similar to that of antipyrin, but there are considerable differences in the mode of action between these two agents. Pyramidon acts in smaller doses, and its beneficial effects are produced more gradually and last longer than those of antipyrin. No changes could be found in the blood of animals treated by pyramidon. In healthy men 0.5 g. produced no subjective or objective effects. In twenty minutes the urine gives the ferric chloride reaction. The dose used in patients varied from 0.1 to 0.75 g. In the adult 0.3 to 0.5 g. of pyramidon may be given as a single dose, and it is best to begin with two such doses in the day. It must remain to be seen how far these doses may be increased. The remedy was found to act promptly in pains of various regions, such as headache, pain in tuberculous peritonitis, etc. Tried in four cases of nephritis pyramidon was useless. The author then gives short details of eight cases illustrating its antipyretic effect. He has put on record his observations on the use of this antipyrin derivative, so that it may receive further investigation.—*British Medical Journal.*

THE AMERICAN PRACTITIONER AND NEWS.

"*NEC TENUI PENNĀ.*"

Vol. 23.

SATURDAY, APRIL 3, 1897.

No. 7.

D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.
JOHN L. HOWARD, M. D., Assistant Editor.

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JOHN P. MORTON & COMPANY, Louisville, Ky.

THE UNIVERSITY OF LOUISVILLE.

The commencement exercises of the Medical Department of the University of Louisville took place in Masonic Temple on the afternoon of March 29th ultimo. Prayer was offered by the Rev. Charles E. Craik, D. D., LL. D., Dean of Christ's Church Cathedral.

Upon recommendation of the Dean, the degree of Doctor of Medicine was conferred upon sixty-eight candidates by the Hon. James S. Pirtle, President of the Board of Trustees, following which Judge Pirtle said :

GENTLEMEN: The learned Dean was not contented to present you in the cold formality of the accustomed formula which has served so many occasions, but has added to his commendation warm words of praise which evince all admiration for your talents and acquirements and his affection for you personally. Both the admiration and affection have their source in the three years of intimate association which has existed while you have pursued your arduous studies. That you have had the industry and talent to devote yourselves to the three years' course demonstrates your fitness to receive the highly honorable degree of Doctor of Medicine. Such a period of preparation leaves in the class none but the worthy; the weaker are left behind, unable to bear the heavy toil and trial of the race.

The President and Trustees of the University can without reserve issue to you the diploma which certifies to all men that you are ready to under-

take the responsibilities of the physician. When the course of study was much shorter than it now is, the graduate was in fact but a beginner in medicine; but you, gentlemen, must, during your attendance upon the University, have seen much of practice and have done no little yourselves. You have seen the most skilled of Louisville doctors operate in many surgical cases, and witnessed their treatment of almost every disease known to our climate. You are thus yourselves doctors of experience. The State of Kentucky and many of the other States have fixed rigid requirements of those seeking to practice medicine. In other professions the entrance is easy—the young lawyer does not need to spend such laborious days and nights to fit himself for admission to the bar. It is not probable that a young lawyer or a young preacher will in his first years have any great responsibility thrown upon him, but the young doctor may at once have the life or health of a patient depend upon his knowledge and his skill. He must act as the older doctor acts, quickly and correctly. There is no difference between the sick and the wounded who come under the care of the younger or the older physician. You must then, says the State, before you can be licensed to practice, be ready to practice. You must know what to do, and know it well, so that no emergency will find you unprepared.

Gentlemen, you are now entering upon the career you have chosen and for which you have so long labored. Let the same courage, industry, and sobriety which have marked your lives while students continue in your professional lives. You have been steadfast in the years of probation; continue in the same way. Let nothing discourage you: "Abate not a jot of heart or hope, but keep right on." It is pleasant to say to you that as a general thing in this life success comes to the deserving. Few exceptions to the rule exist: not all who deserve success attain it; but in the learned professions distinction in its true sense is never won without being deserved. With your gifts by nature, which have with your steady exertion of them enabled you to reach the position you hold to-day, there should be no reason why the honors and emoluments of your profession should not be won by all of you. To give you examples of the rewards which you may reap I need only to turn to the learned Faculty who sit upon this platform. I have known most of them when they were, like yourselves, just starting upon their professional lives. Myself a graduate of another department of the University, I have watched the progress of these gentlemen until they have become among the most distinguished physicians and surgeons of the land. What they have done you can do by following in their footsteps. The University bids you Godspeed! We look to you to reflect honor upon us, and we shall follow you with ardent hopes for your success.

The class valedictory was delivered by Herbert E. Whitley, M. D., of Kentucky, and the faculty valedictory by Professor J. M. Bodine, M. D., Dean. These addresses in full text appear elsewhere in this issue.

The following is the list of graduates :

| | | | |
|---------------------------|--------------|---------------------------|--------------|
| Burns, John Cunningham, | Texas. | Martin, J. Cray, | Kentucky. |
| Ballou, Porter Vernon, | Kentucky. | Mitchell, Samuel L., | Kentucky. |
| Boss, Edward, | Kentucky. | Marshall, Cyrus C., | Tennessee. |
| Blitz, Louis C., | Kentucky. | Meeker, Lawson A., | Ohio. |
| Bishop, Walter Augustus, | Texas. | Magee, Wm. Etheldred, | Texas. |
| Brown, Edgar F., | Florida. | Murphy, Nathan Edm'nd, | Alabama. |
| Boggs, Andrew S., | W. Virginia. | McCrary, John Oliver, | Georgia. |
| Bell, Joseph Lawyer, | Mississippi. | Newman, And. Johnson, | Tennessee. |
| Bernheim, Albert, M. D., | Kentucky. | O'Neill, Oliver Ulysses, | Ohio. |
| Colley, Lubie Girard, | Kentucky. | Porter, George Lewis, | Kentucky. |
| Cramm, Carl J., | Indiana. | Parker, Samuel Epps, | Mississippi. |
| Cornwell, Edw. Sylvester, | Mass. | Parker, Joseph B., M. D., | Tennessee. |
| Caldwell, Arad Keith, | Kentucky. | Robertson, Dupe S., | Kentucky. |
| Cox, N. Brock, M. D., | W. Virginia. | Rapp, Henry L., | Kentucky. |
| Daughtrey, Wm. Thomas, | Kentucky. | Reid, George Thomas | Kentucky. |
| Dempsey, William E., | W. Virginia. | Russman, Charles G., | Kentucky. |
| Davenport, Albert Ewing, | Texas. | Richardson, Foster G., | Arkansas. |
| Dunham, Oscar, | Kentucky. | Rankin, Horace Rudolph, | Tennessee. |
| Elliott, John William, | Indiana. | Reno, Clarence Gilliam, | Kentucky. |
| Eads, John B., jr., | Kentucky. | Rye, Robert Lee, | Ind. Ter. |
| Foster, Alex. Cleveland, | Texas. | Stroube, Chas. Nicholas, | Indiana. |
| Finch, William C., | Indiana. | Spurgeon, Cornelius, | Indiana. |
| Gingles, Charles Otis, | Kentucky. | Samuels, William L., | Indiana. |
| Hart, Frederick H., | Kentucky. | Smyth, Arthur Wells, | New York. |
| Harned, John W., | Kentucky. | South, John Glover, | Kentucky. |
| Honeycut, Joseph B., | Texas. | Starr, Iler D., | Indiana. |
| Hammonds, Louis F., | Kentucky. | Stephenson, Est'n Byrne, | West Va. |
| Kirksey, John Franklin, | Kentucky. | Smith, Edgar, | Texas. |
| King, Walter Wood, | Indiana. | Townsend, Terry M., | Indiana. |
| Knolle, Robert H., | Texas. | Whiting, Ulysses G., | Indiana. |
| Kister, George H., | Indiana. | Walker, George W., | Kansas. |
| Long, Holland P., | Indiana. | Williams, Atrias O., | Kentucky. |
| La Rue, Horry, | Kentucky. | Whitledge, Herbert E., | Kentucky. |
| Martin, John Christian, | Missouri. | Walsh, David Yandell, | Kentucky. |

Music, flowers, and good will lent harmony, grace, and sentiment to the exercises, while the parent bird (*Alma Mater*) stirred up the nest, and wafted forth the fledglings with tender solicitude. May success be theirs.

DR. DULANEY L. WASHBURN.

On the 27th ultimo this popular young physician died at his home in Louisville. His death came somewhat precipitately, though the fact that his health had been failing for a year or more was known to his friends.

Dr. Washburne was born in Jefferson County, near Louisville, in 1855. He received his literary education in the public schools of this city. In 1880 he began the study of medicine under Prof. H. A. Cottell. As a student his progress was exceptionally rapid, and at the time of his graduation his rank was far above the average. He immediately found employment as assistant in the clinics of the University and teacher in the sub-department. He served as assistant to Prof. John A. Ouchterlony in the medical clinic till 1886, when he was appointed prosector to the chair of anatomy and quiz master under Prof. J. M. Bodine. Here his proficiency, learning, and energy found full scope and profitable exercise.

Dr. Washburne was a thorough anatomist, an expert dissector, and a teacher of unusual clearness and power. He was faithful and true in every obligation of life, the soul of honor, and the personification of industry and singleness of purpose. To this he added a kindness of heart and a cheerfulness of manner which caused him to be loved by all who knew him.

He dies in the plenitude of ardent manhood, just as time had given him through study and experience that professional repose which insures the largest usefulness. The loss to friends, colleagues, students, and *clientèle* is irreparable; but in consolation, if not in compensation, he leaves behind him the priceless legacy of a stainless character, and a life devoted to science and the good of man.

Notes and Queries.

GROSS LESIONS OF THE PREFRONTAL REGION.—Williamson (Brain, Autumn, 1896,) has analyzed fifty cases of tumor involving the prefrontal lobes; four of these were abscesses, the rest tumors of sarcomatous, syphilitic, or tuberculous nature. Headache was marked in most cases, generally frontal, but sometimes occipital. Optic neuritis was unilateral, or much more advanced on one side than the other in several cases, a symptom of some importance in the diagnosis from cerebellar tumor, in which it seems to be rare. Unilateral or bilateral loss of smell was noticed in seven cases only, while localized swelling in the frontal region and unilateral exophthalmos are still more rare, but these symptoms when present point strongly to some prefrontal lesion. Motor symptoms were slight when present, and generally occurred only at the end of the illness; they were usually hemiplegic in character, and were due to extension backward of the lesion into the motor area. Anesthesia never occurred. Ataxia may be present similar to that of cerebellar disease, and a further point of similarity is the variability of the knee-jerk, which may be absent, normal, or increased. The chief interest attaches to the psychical symptoms, which are generally well marked and often occur early; in some cases childish behavior, with an abnormal tendency to fall asleep, in others mental impairment, with a peculiar hilarity and tendency to jest, has been observed; similar conditions were noticed by the writer. The patients usually became comatose before death. The diagnosis from cerebellar tumor may be difficult, as the following symptoms are common to the two conditions, namely, occipital headache, absent knee-jerks, and ataxia; the points of distinction are the early and prominent mental symptoms, and the greater affection of the optic disc on one side than the other in prefrontal lesions, in which also paresis of limbs and convulsions are much less rare than in cerebellar regions. From lesions of the motor area the prefrontal lesion may be diagnosed by the much earlier onset of mental than of motor symptoms, and also by the ophthalmoscopic symptoms mentioned, and occasionally by the loss of knee-jerks and of smell; tenderness also on percussion over the frontal region may point to a lesion here. Operation was tried in three of the fifty cases, two were successful, one being an abscess, the other a solid tumor.—*British Medical Journal.*

OPERATIVE TREATMENT OF FACIAL NEURALGIA.—Tiffany (Annals of Surgery, November, 1896,) publishes an analysis of one hundred and eight cases of facial neuralgia treated by intracranial operation. Of these nearly two thirds were subjected to the Hartley-Krause method, and nearly

one fourth to that of Rose. Of these cases twenty-four were fatal, including one in which the patient died three months after the operation from cerebral abscess. Shock and sepsis, it is shown, are the chief causes of death. The author, in discussing the result of surgical treatment in the cases of recovery, asserts that intracranial excision of branches of the fifth nerve relieves pain, certainly for a time, and perhaps permanently; but pain may recur, possibly in the territory subject to the excised branch, possibly in other branches. Recurrence of pain after known removal of the ganglion of Gasser is not recorded. The expediency of removing the whole of the ganglion is questioned. The first branch, it is stated, is never affected alone; and trouble of one kind or another in the eyeball has been often met with after removal of the first division of the fifth nerve. It is well, in the author's opinion, not to take away the upper portion of the ganglion and the first branch, but rather to remove the second and third branches with the corresponding portion of the ganglion. The following suggestions are made with the object of assisting the surgeon in his decision with regard to the necessity of a central operation in a case of facial neuralgia. An intracranial operation is indicated if more than one branch of the fifth nerve is affected; if the painful area receives filaments from the branches near their exit from the head; if the pain is not the expression of a constitutional disorder; if a cause central to the ganglion does not exist; if other measures have failed to give relief. The intracranial operation which should be done is removal of the lower two thirds of the Gasserian ganglion, together with the second and third branches as far as their foramina of exit from the skull, all in one piece, so as to be certain of the amount of tissue taken away.—*Ibid.*

THE ACTION OF INFLUENZA ON THE FEMALE ORGANISM.—The *Indépendance médicale* for November 25th publishes an abstract of an article by Dr. Gabriel d'Engel (*Wiener medizinische Presse*, October 16, 1896), in which the author states that during the epidemic of 1889 to 1890 influenza occurred as frequently in women as in men; it was also noticed that when the disease attacked a family the women were seized first, but that it was more benign in them than in the men.

In women influenza does not exercise so injurious an action on the respiratory and digestive organs as in men; on the other hand, it produces in them much more frequently disturbances in the physiological functions of the genital organs.

Following the simple disturbances of menstruation there may be observed a series of anomalies of this kind which may resemble an obstruction of the blood or hyperemia of the genital parts, but which can not be attributed to any other cause but influenza.

The most important pathological alterations are found in the mucous membranes. The genital organs seem to have a special predisposition for the localization of the disease.

In forty per cent of the cases observed by the author the initial phase of influenza coincided with the menstrual period. The flow of blood was often more abundant and lasted longer than ordinarily. Several of the patients noticed also the presence of clots.

If the disease occurred a week before the regular menstrual period, it provoked menstruation. The author observed that it caused a regular menstruation during several months in anemic or chlorotic girls, and that in six cases it brought on the first menstruation.

Acute and chronic uterine catarrhs are aggravated by the action of influenza, the secretion becoming more abundant and more like pus.—*New York Medical Journal.*

FATAL POISONING BY ARSENIC IN THE VAGINA.—Haberda (*Centralb. f. Gynäk.*,) states that a maidservant from Styria, aged twenty-five, was seized with vomiting and faintness on September 20th, left her situation in Vienna on September 22d, and was picked up prostrate a day later and sent to a hospital. She was almost pulseless, and the abdomen was very tender; she pretended that she was menstruating, and no pelvic examination was made, but as she stated that she was constipated an enema was given, and a stool with bloody mucus came away. There was scarcely any pulse, and she died on September 25th. At the necropsy acute fatty degeneration and hemorrhages in solid viscera were detected, and phosphorous poisoning suspected, so Haberda made a closer examination of the subject on order from the magistrates. He found icterus and hemorrhages under the skin and in the muscles. The spleen was greatly enlarged, and there was recent fibrinous pelvic peritonitis. Arsenic poisoning was suspected. On searching the vagina a paper bag was found containing still a quantity of white arsenic in fine crystals. Acute inflammation of the vagina with false membrane on the labia minora and incipient sloughing of the rectal mucosa over the recto-vaginal septum were detected. The labia majora were very edematous. The case was probably suicidal, as the deceased had told the hospital authorities that she was menstruating so as to throw them off their guard, though the pain must have been intense and desire for relief urgent. Haberda states that in the last century a peasant murdered three of his wives by introducing arsenic into the vagina after connection. Another wife murder was effected in the same way in 1799. In 1864 a single woman, finding herself pregnant, attempted to produce abortion by this means, but killed herself thereby. In 1890 a prostitute was murdered by a man who by force introduced a quantity of arsenic into the vagina, wrapped up in a knot of horsehair.—*British Medical Journal.*

UREA AS A THERAPEUTIC AGENT.—G. Klemperer (*Deut. med. Woch.*, November 19, 1896,) says that urea in large doses acts as a diuretic, and is able to keep the uric acid in solution. The author now communicates the results obtained by him in eleven cases of ascites due to cirrhosis of the liver,

nine cases of pleural effusion, thirteen cases of valvular disease, and seventeen cases of disease of the myocardium (all with dropsy), and nine cases of Bright's disease, also with dropsy. He orders 10 g. of urea in 200 c. cm. of distilled water, the dose being one teaspoonful. When possible the whole quantity is taken in the twenty-four hours. The urea is increased to 15 g. in two days, and 20 g. in four days. Occasionally diarrhea was noted, and this was not altogether undesirable. This urea treatment is continued for fourteen days, but much larger doses have been employed by the author. In Bright's disease no diuretic effect was noted, and this confirms the view that urea is excreted by the renal epithelium, which it stimulates to greater activity. The best results were obtained in ascites due to hepatic cirrhosis and in pleural effusion. The urine was sometimes increased up to five liters, and large peritoneal effusion disappeared. In heart diseases the result was variable. Sometimes considerable diuresis was induced, but more often it was only moderate in amount, and just occasionally absent altogether. The author would refer this absence to the altered renal epithelium. Considerable albuminuria is a contra-indication. He would recommend its use in all cases of hydrops and ascites not of renal origin when other remedies fail. The good effects are visible in two or three days, and if none occur before the fifth day the remedy should be discontinued. The urea treatment of renal calculous diseases is of importance, and the author has employed it without ill-effects in forty-two cases. He recommends a powder containing equal parts of urea, sodic bicarbonate, and calcic carbonate. Klemperer employs the urea treatment in cases where there has been an attack of renal colic, or where there are pains in the back with a previous history of passing calculi. Hematuria is a contra-indication. Already formed calculi can not of course be dissolved. Urea may be used in gout when a diuretic effect is describable, but the necrotic tissue holds the uric acid so firmly that no solvent can act upon it. The therapeutic value of urea thus lies in the treatment of the various forms of hydrops not of renal origin, and also in cases where there is a tendency to calculous formation.—*Ibid.*

THE PATHOLOGY OF ICTERUS NEONATORUM.—Knoepfelmacher (*Wien. klin. Woch.*, October 22, 1896,) has studied this question from a new point of view. The theories as to the pathology of icterus neonatorum may be grouped under five headings. The first attributes it to the absorption of bile from the intestine, the second to the absorption of normal bile from obstructed bile ducts, the third to increased destruction of red corpuscles, leading to formation of an increased quantity of bile, which is altered in quality, and so escapes into the blood, although the biliary passages are clear. In this case the bile gets into the blood in the liver, but the fourth group of theories maintains that the conversion of altered blood pigment arising from increased destruction of red corpuscles goes on in the circulation without the intervention of the liver, and the last holds that it is

effected either in the dilated cutaneous capillaries or after extravasation of blood into the tissues. The last three groups all presuppose increased destruction of red corpuscles, and with a view to elucidate this question Knoepfelmacher has investigated the blood of infants during the first seven days of life in three directions—the number of red corpuscles, their resistance to sodium chloride solutions, and their histological character. The research was carried out upon twelve children, all of whom developed a greater or less degree of jaundice. The cord was tied as soon as it ceased to pulsate, the first estimation was made as soon after birth as possible, and the succeeding ones at the same time on the following days. The resistance was measured by the strength of sodium chloride solution required to break up the red corpuscles within a given time. The author finds that the number of red corpuscles either falls steadily from birth, or else rises a little immediately after birth and then falls again; these changes are, as regards the corpuscles, only apparent, being really due to alterations in the volume of the plasma. They also bear absolutely no relation to the development or disappearance of jaundice. The resisting power of the red corpuscles is found to be the same at birth as in adult life, nor is it increased in icterus neonatorum, although Von Limbeck has shown it to be much above the normal in the jaundice of adults. The most intense jaundice during the first week of life does not affect the resisting power. Histologically Knoepfelmacher was able to detect considerable variation in the size of the erythrocytes, some of which were pale throughout, and others pale in the center; deformed and "shadow" corpuscles were absent. There was hence evidence of rapid production of red corpuscles without any indication of increased destruction. The author hence concludes that the red blood corpuscles play no part in the etiology of icterus neonatorum.—*Ibid.*

EFFECT OF DIPHTHERIA ANTITOXIN ON THE KIDNEY.—Siegert (*Virchow's Archiv*, November, 1896,) records some clinical and experimental observations upon the effect of the subcutaneous injection of Behring's diphtheria antitoxin on the kidney. He finds that after the injections there occurs generally a slight transitory albuminuria and albumosuria; this was found, not only in patients already suffering from diphtheria, but also in healthy children in whom the antitoxin was injected as a prophylactic measure. In animals the injection produced similar change in the urine and also a diminution in its quantity and specific gravity. It was suggested that the albuminuria was due to the small amount of carbolic acid in the serum, but this was easily disproved. In some cases acute parenchymatous and hemorrhagic nephritis occurred in patients treated with the serum, but there was no evidence that this occurred unless some change had taken place in the serum used. Occasionally anuria occurred after the injection, and the same phenomenon was observed in animals. If albuminuria be already present in a case of diphtheria the injection of

antitoxin generally causes the albuminuria to disappear without evil consequences. That the alterations in the urine are generally due to mere functional disturbance in the kidney seems to be shown by the fact that even with 10 c. cm. of Behring's serum no organic lesion of the kidney could be produced in a rabbit. Siegert concludes that if it can be shown that antitoxin is a specific against diphtheria the usually slight disturbance of the function of the kidney can not be urged against its use.—*Ibid.*

PERFECTED x -RAYS.—A sixteen-inch spark in a twenty-inch tube, giving an intensity two hundred per cent greater than that possible with the four-inch spark in a twelve-inch tube, formerly used, is said to do the work in thirty seconds and do away with the long exposures.

Special Notices.

A PHYSICIAN AND HIS PATIENT IMPOSED UPON BY A DRUGGIST'S SUBSTITUTION.—I gave Sanmetto to Mrs. H., aged twenty-eight years, for frequent micturition and tenderness in region of kidneys. Patient was compelled to rise four or five times during the night, passing nearly a half gallon of urine during this time. After using a bottle of Sanmetto she was greatly relieved, but instead of getting more Sanmetto, as I directed, patient was induced by her druggist to get a preparation of palmetto; this had no appreciable effect whatever. Patient is now using Sanmetto, and is not likely to be imposed upon again.

W. OCELLUS HARTSHORNE, M. D., Cross, Okla. T.

I HAVE used Celerina quite largely both in private and hospital practice, and with gratifying results. It is void of repugnant taste and is readily retained by the stomach. My experience with Celerina has been confined chiefly to its use in nervous diseases, particularly loss of nerve power and the opium habit, in which conditions it has served me well, and I shall continue to prescribe it both in private and hospital practice.

W. IRVING HYSLOP, M. D., 4408 Chestnut St., West Philadelphia, Pa.

We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to indorse their preparations as being all they claim for them.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. XXIII. LOUISVILLE, KY., APRIL 17, 1897.

No. 8.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ABSCESS OF THE LIVER.*

BY JOHN G. CECIL, A. M., M. D.

Professor of the Principles and Practice of Medicine in the Louisville Medical College.

Suppurative inflammations of the liver are divided into two classes, the solitary or tropical abscess, and the septic or pyemic abscesses. This division is convenient; it also has an etiological basis in the character of the micro-organisms which produce these abscesses. The solitary abscess in hot climates commonly follows dysentery, and is doubtless caused by the ameba coli. The septic and pyemic abscesses, whether associated with traumatism, embolism, suppurative cholangitis, foreign bodies or parasites, are caused by the various forms of pyogenic cocci.

The relation existing between the solitary or tropical abscess and amebic dysentery, as demonstrated by the investigations of Kartulis, Councilman, Lafleur, Dock, and others, is most convincing. By these observers it is proven that the solitary abscess and amebic dysentery are due to the ameba coli; the relation ordinarily existing between them is that the dysentery precedes the abscess, in other instances they coexist, in still others the patient may have ameba in the actions, decided symptoms of liver abscess without symptoms of dysentery, the feces being well formed.

The mode of ingress into the liver is yet undecided, the most probable channel being through the portal circulation, though in

* Read before the Louisville Medico-Chirurgical Society, April 25, 1897. For discussion see page 303.

other instances it is not improbable that the entrances are by way of the bile ducts. In this variety the abscess cavity is usually single; there may, however, be two or more large cavities. In about 70 per cent the abscess occupies the right lobe and is situated more toward the upper surface of the liver. In chronic cases there is frequently a well-defined limiting membrane; in others the abscess wall is made up of necrotic liver tissue, "The pus is often reddish-brown in color, closely resembling anchovy sauce." (Osler.)

The septic or pyemic abscesses of the liver are always multiple. Many small cavities may, however, break into each other, forming one large collection of pus. The micro-organisms reach the liver by means of the hepatic artery, the lymphatics, or the portal vein. Unless induced by direct injury or foreign bodies and parasites, they are always secondary to inflammatory process in some other part of the body, this process being most often within the limits of the portal circulation.

Antedating pyemic abscesses we have dysentery, other ulcerations of the bowels, hemorrhoids, strictures, appendiceal inflammations, pelvic abscesses, rarely after typhoid fever; suppurative cholangitis, caused by gall-stones and parasites. It is well to remember that injuries to the head and bone diseases are occasionally followed by liver abscess. The infective agents sometimes reach the liver after passing through the respiratory capillaries without producing pulmonary abscess; the more sluggish circulation through the portal system favoring the arrest of these germs is the probable explanation of this. The suppuration is generally within the branches of the portal vein—a suppurative pylephlebitis. The liver is uniformly enlarged, the surface may be smooth and normal in appearance, or yellowish points of suppuration may be visible. "These abscesses are either round in outline or distinctly dendritic, having the appearance of small isolated abscesses; but on closer examination they are found to communicate with the portal vein and to represent its branches, distended and suppurating."

Symptoms and Diagnosis. When it is remembered that the liver and the regions and organs in its immediate vicinity are the seat of so many obscure affections, it is not surprising that the diagnosis of liver abscess should be beset with manifold obstacles. Not rarely does it happen that the disease runs a latent course, to be discovered by *post-mortem* examination, or by rupture into adjacent cavities.

Of the ordinary symptoms, pain in the region of the liver is one of the most constant. This, however, is extremely variable. When the abscess is deep-seated, the liver being a rather insensitive organ, pain is either entirely absent or amounts only to a sense of uneasiness and heaviness. When the abscess reaches the investing capsule the pain becomes both constant and great; if located toward the convex surface the pain is referred to the back and right shoulder; when on the under surface the pain is deflected downward, and the gastric symptoms are more exaggerated. Jaundice is another uncertain sign. Cases resulting from suppurative cholangitis, with obstruction to the common bile ducts, generally have pronounced jaundice, with fecal discharges showing absence of bile. In by far the greater proportion of cases there is not distinct jaundice, the skin showing an icteroid tint, the complexion being muddy or dirty-looking. When abscesses have attained any considerable size, the right side will be enlarged and the area of liver dullness increased. Should the abscess grow downward, fluctuation may be found; this, however, is not available in many cases. Recalling the fact established by the statistics of Waring, Murchison, and others, that the majority of hepatic abscesses are located in the right lobe, posteriorly and near the upper surface, we may look for the increase in area of liver dullness to be upward. Nausea, loss of appetite, vomiting, and progressive emaciation are quite constant and confirmatory symptoms. Tenderness upon pressure over the liver and a board-like resistance in the abdominal muscles, especially the rectus, as it is found in appendicitis, are corroborative signs. A dry, hacking cough and dyspnea are frequent symptoms, particularly when the pressure is upward on the diaphragm. There is always more or less febrile action, chills followed by fever and sweats, frequently assuming a distinctly periodical intermission or remission closely resembling malarial fevers. Ascites, enlargement of the superficial veins, and edema of the lower extremities seldom occur in connection with hepatic abscess, differing in this respect from many other diseases of the liver. It is said that persons suffering from dysentery and abscess of the liver can not take the classic ipecac treatment for the former. It must not be forgotten that the aspirator may be used in any case to clear up a doubt. If used at all it should be used boldly, fearlessly. It does not add materially to the danger. The patient should be anesthetized, the needle large, and the punctures deep and in different directions until the pus is located.

In the matter of differential diagnosis many diseases are thought of—only a few can be briefly considered, and these may be divided into general and local, or medical and surgical. It is not saying too much, nor saying it too strong, to affirm that failure to make a correct diagnosis is often the result of failure to make a critical and painstaking physical examination. In no class of cases is this truer than of liver troubles. The frequency with which cholelithiasis is treated for dyspepsia and hepatic abscess for malaria attest the truth of carelessness in diagnosis. It is true that malaria does present many points in common with liver abscess; but practically any case of fever that is not cured by the proper exhibition of quinine and arsenic is not malarial. Beside this, which may be considered a crucial test for malaria, the blood examination for the plasmodium malarizæ of Laveran should not be neglected. Again, splenic engorgement is rare in hepatic abscess while it is constant in malarial affections. The acute pulmonary affections have usually a clinical history well enough defined to offer little difficulty in differentiation. Certain cases of enteric fever present a clinical picture resembling liver abscess. The type and course of typhoid, when unmodified by antipyretics, in comparison with the more erratic chill, fever, and sweat of hepatic abscess is sufficient, together with the other usual manifestations of typhoid, to make the distinction clear. Many other constitutional affections might be considered with advantage, but local or surgical diseases are more important and more numerous. Bearing in mind the ordinary signs of liver abscess, which are seldom entirely wanting, and the fact that these abscesses in the large majority of cases are secondary to disease in some other region, using the aspirator, and if necessary exploratory incision, doubt in most cases may be cleared away.

“Cancer of the liver differs from an abscess by its dissimilar history, by the hard nodular masses, and by absence of fluctuations. . . . Further, the marked fever and other constitutional symptoms are not like what occurs in hepatic cancer; the temperature in cancers, except in instances of large, rapidly spreading growths, is but little affected—may indeed be subnormal.” Tendency in cancer is for the growth to spread downward, in abscess the tendency is upward. In cancers the superficial veins are enlarged and edema of lower extremities common. From a suppurating hydatid cyst of the liver an abscess can scarcely be diagnosticated.

Distension of the gall-bladder from inflammation or closure of the common or hepatic duct may be readily mistaken for an abscess. "Sometimes we are able to distinguish the soft swelling caused by a diseased gall-bladder by its situation, its pear-shaped form, its mobility, and absence of adhesions to the abdominal walls, its distinct and persistent fluctuations; by its never having been hard; by the normal appearance of the parietes of the abdomen; by the absence of tenderness over the liver, merely tenderness over the tumor formed, and by history of frequently repeated attacks of violent pain due to passage of biliary calculi."

Of diseases in the liver region abscesses of the base of the right lung are not uncommon and present many features of similarity. In both there is increased area of dullness, pain is similar in character and location, cough is a feature of each, the constitutional symptoms are more or less parallel. The history leading up to the illness is quite dissimilar in most instances. Pulmonary abscess is constantly preceded by pneumonia; hepatic abscess by dysentery, suppurative processes within the bounds of the portal system or suppurative cholangitis. The sputum from a ruptured abscess of the lung is of purulent nature, stained with blood, while that from abscess of the liver is often of reddish-brown color, like anchovy sauce. The pulsating pleurisy, or encysted empyema, or subphrenic abscess are also affections extremely difficult and often impossible of differential diagnosis. In pyothorax the initial thoracic symptoms will generally give the cue. Dyspnea is ordinarily more pronounced, and there may be a slight resonant space between the pleural pus collection and the liver.

In suppurative appendicitis, the previous history, the presence of the tumor, the location of the pain, the resistance of the abdominal muscles, together with the absence of functional disturbances of the liver, generally suffice to clear away all doubt.

In paranephric or perinephric abscess of the right kidney, which is very confusing, it is well to remember that this is frequently the result of disease of the kidney, or by extension of inflammation from neighboring parts, that its origin is never spontaneous, that it occurs twice as often in adult males as in females. Pain and swelling in the lumbar region are the localizing symptoms.

The difficulties and diseases requiring differentiation may be still further multiplied, but the foregoing are sufficient.

In this discussion it has been assumed that the hepatic abscess has attained considerable size. The exceptions to the rules are many, and in case of small multiple abscesses, as not infrequently happens, many of the signs will fail and the diagnostician will confess bewilderment with no friendly light ahead.

The course and termination of liver abscesses is varied. The condition is always one of great gravity. The average duration is from six to eight weeks. Multiple pyemic abscesses are practically not amenable to treatment and the termination is fatal. The tendency of large collections of either variety is to rupture externally or into adjacent hollow organs or cavities. Ruptures into the large veins, pericardium, or peritoneum, are invariably fatal. Rupture into the stomach, duodenum, colon, or through the diaphragm into the pleural cavity, frequently results in recovery. A few small abscesses may become inspissated and calcified.

Medical treatment of liver abscess is only palliative. When rupture has occurred in any direction, as long as the abscess is properly or satisfactorily evacuated interference is not advisable. Should the evacuation be unsatisfactory, resulting in hectic fever, emaciation, and generally bad progress, a counter-opening through the side should be attempted.

The trocar or aspirating needle are very valuable, it may be said indispensable in diagnosis, but comparatively useless in treatment. The best results ever obtained have been those that followed free evacuation with the knife. When pus has been located by needle or otherwise, the knife should be boldly and freely used. There is little to be gained and possibly much to lose by waiting for nature by inflammation to form protecting adhesions.

The point of election is the most dependent part of the collection, or the point showing a tendency to rupture. In absence of this the points of election are just below the ribs, or in the seventh intercostal space in mid-axillary line. In early operations, or before adhesions have formed, it is advisable to open the peritoneal cavity first, and pack it off by gauze preliminary to opening the abscess. The subsequent management is similar to that of abscesses in general.

LOUISVILLE.

EYE HEADACHES.

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It is with some hesitancy that I renew this subject, which has been variously discussed and almost exhausted by many of our leading authorities. However, the importance of the subject and the prevalence of headaches lead me to believe that a repetition would be of some interest. The theme has suggested itself through several cases recently referred to me, where a knowledge of the rough tests by the physician may have saved the patient the expense of consulting the specialist.

Previous papers on "Eye Strain" were designed more for the specialist than for the general practitioner. It shall be my object in this paper to simplify as much as possible those conditions of the eye known to us which may lead to headache rather than to offer original suggestions. The methods of detecting the various conditions can be simplified in such a way that the general practitioner who is called upon to treat headache may, by a limited examination, be able to eliminate the eye as a source of the trouble where this is possible.

In order to make what is to follow more easily understood, I must assume that the nomenclature of the functional eye troubles is not clear to most practitioners, and briefly designate the principal conditions met with. When we speak of the refractive power of an eye, we do so in reference to rays which are parallel to each other when they reach the eye. Practically this is the case when they come from a distance of twenty feet or more. When the refractive powers of the media of the eye are such that in a state of rest, or, in other words, without lenticular changes, they focus parallel rays clearly upon the retina, we speak of a *normal sighted or emetropic eye*. There is then a clear perception of the object fixed.

When the image is focused in front of the retina by virtue of greater length of the antero-posterior axis of the eyeball or by greater refractive properties of the media, we speak of a *near-sighted or myopic eye*. The rays have become focussed in front of the retina, which they strike in larger diffusion circle; the image is consequently not clear. It may be made clear by bringing the objects fixed closer to the eye. The rays in this way reach the eye with a certain degree of divergence which will cause them to be focussed further back and to fall upon the retina.

In the *far-sighted or hypermetropic eye* the condition is just the reverse. The focal point of the rays entering the eye has not been reached when they strike the retina. Owing to the lower refractive power of the media or the shortness of the antero-posterior axis of the eyeball the focus or clear image would fall behind the retina, and objects would consequently appear indistinct. This can be overcome by the lens which, by the action of the ciliary muscle, may become more convex and increase its refractive power. In this way the rays are gathered in at a shorter distance and are brought to a focus on the retina. This phenomena is called *accommodation*. In fixing close objects the act would naturally have to be increased. It would also have to be brought into play in emetropic eyes for fixing close objects; in myopic eyes only when the objects are brought closer than the far point (the farthest point from which the object would be clearly focussed upon the retina without ciliary action). The divergent rays of close objects to be gathered in and focussed must be acted upon by a strong refractive power, such as the lens assumes during accommodation. This function is very great in childhood and diminishes with age, as the elasticity of the lens becomes less. At the age of seventy it is practically entirely lost. At the age of forty-five there is just about enough accommodation left to enable the emetropic eye to see objects clearly as close as eleven inches. After that the effort at accommodation is the source of annoyance. This inability to accommodate sufficiently for close objects is called *presbyopia*. This will necessarily appear earliest in far-sighted individuals, where part of the accommodation is consumed in correcting the hypermetropia, and latest, or it may remain entirely absent, in myopic individuals.

Owing to the common center of innervation the act of accommodation imparts more or less of a stimulus to the contraction of the internal rectus muscle of the eye, causing it to turn inward—*convergence*. As the normal sighted or emetropic eye accommodates only for close objects which also require some convergence to bring about binocular vision, it is conceivable why this synergy between accommodation and convergence should exist.

Another functional error of the eye, and one of no little importance, is the one in which the rays of light, falling upon the eye in one plane or meridian—say the horizontal—are refracted differently from those entering the plane which would strike it at right angles, in this case the vertical meridian. This condition is called *astigmatism*. One

plane of the image may be focused upon the retina and the other in front of it (myopic astig.), or behind it (hypermetropic astig.), either condition resulting in blurring of the images. All grades of astigmatism may exist, the vision suffering in direct ratio with the amount. Besides this *regular astigmatism* we find a condition of the cornea at times in which there are unequal refractive powers of the same meridian—an irregular surface (opacities, keratoconus, etc.). This condition is known as *irregular astigmatism*, and always causes defective vision.

Having considered the important functional and muscular errors to which the eyes are liable, we will now take them up individually, and consider in which way they are responsible for headaches. Every physician who does refractive work necessarily must realize that the majority of headaches with which the general practitioner has to deal are not of ocular origin, nevertheless the increasing proportion of such cases relieved from year to year leaves no doubt that many headaches are due to uncorrected errors of refraction, etc. In many instances the brain symptom is the most prominent or the only sign of eye strain. My experience leads me to believe that quite a respectable number of those cases applying to the oculist would, if properly examined, be found to have some other origin. Headache may be a reflex symptom of disorders of various kinds, the most frequent being the disorders of the stomach or bowels. Not infrequently we observe it as an accompanying symptom of nasal stenosis or of suppurative ear disease. A condition very often responsible for headache is a general instability of the nervous system, in which the slightest strain is referred to the head. So I may enumerate many other causes, such as general malnutrition, anemia, or intoxication of various kinds, particularly from foul air, etc. Any of these conditions may be predisposing factors which materially aid in causing symptoms when there is a refractive or muscular error of the eyes. Irrespective of the functional troubles headache and photophobia very often go along with most of the inflammatory conditions of the eyes and their membranes, such as choroiditis, iritis, keratitis, and conjunctivitis.

The refractive error which gives rise to headache more than any other is hypermetropia. In the far-sighted eye there is at all times—for near and distant objects—a contraction of the ciliary muscle, or in other words, a continual accommodation necessary to bring the rays to a focus on the retina. This action is naturally increased proportion-

ately as the object fixed is brought closer to the eye. In children the vigor of the ciliary muscle may stand this strain for some time, but with the advance in age or the increase in close work they sooner or later become unequal to the task. The work imposed upon the ciliary muscles is too great. The muscles in their effort to overcome the difficulty cause nervous symptoms usually referred to the head. The headache is as a rule frontal, but it may be in the vertex. The patients not infrequently complain of a sensation in the forehead as if a band were drawing the eyes together. The symptoms appear sooner or later, according to the amount of hypermetropia present. Usually the headache is preceded by other less annoying symptoms: the eyes begin to burn or feel sandy, the lids become heavy, and finally the print (if person is reading) becomes blurred. The headache usually makes its appearance at this time, or upon giving up the work. It is almost characteristic of hypermetropia, that in beginning close work (reading, writing, or sewing,) there is no trouble, but after continuing for a short while the symptoms just referred to make their appearance, and the patient is forced to discontinue his work. After a short rest of the fatigued muscles they can again resume their work—however, only for a short time, when they will go through the same symptoms. Some more troublesome but fortunately less frequent symptoms which sometimes arise are dizziness, nausea, and insomnia. Any of these symptoms or their combination are spoken of as asthenopia. It is in these cases due in a great measure to the exaggeration of accommodation. To lessen this as much as possible these patients almost invariably hold the book as far as possible from the eye. In fact some individuals avoid the symptoms referred to by carrying the objects further and further from the eye, until finally the clear perception of close objects becomes impossible. This condition of presbyopia can be corrected by the use of convex lenses. If it remains uncorrected and the individual persists in the endeavor to do close work (under which we include reading) the symptom spoken of will seldom remain absent.

Of all the functional eye troubles the one least liable to cause headache is myopia. In some of the rapidly progressing or so-called pernicious cases there is often an increased sensitiveness of the retina which may be productive of a sensation of pressure in the orbits and finally of a real cephalalgia.

In myopia there is, on account of disuse, a weakness of accommodative tension, and often a complete relaxation. Knowing the synergy

which exists between the accommodation and convergence, it is conceivable how this relaxation of accommodation brings about a discord between these two functions. The stimulus brought to bear upon the internal recti through accommodation is, in other words, absent. This becomes manifest when the eyes fix close objects, which requires a certain amount of convergence. The weak or insufficient internal recti make a great effort to retain binocular perception, and this strain gives rise to heaviness and pain in the head and orbit and blurring of objects. There may be vertigo and nausea. After a time one or the other of the internal recti gives up the fight for binocular vision, and leaves the eye to the mercy of the external rectus which pulls the eye outward, causing, in other words, a divergent squint. The other eye can then readily fix, and all irritative symptoms disappear. In speaking of this condition Landolt says: "The struggle for the desire for distinct vision and that for binocular vision engenders in the case of ametropes (ametropia=deviation from emetropia) of medium degree most diverse manifestations of asthenopia, from which they escape only by the relative loss of one eye. Binocular vision is sacrificed for distinct vision."

In the majority of cases of myopia with some of the symptoms referred to the continual use of a concave glass causes a cessation of the symptoms.

Where insufficiency of the rectus internus has been established in these myopic eyes with a maintenance of binocular vision, the exaggerated impulse of accommodation provoked by the effort in bringing about convergence may cause a spasm of the accommodation. The same condition frequently arises in emetropic and hypermetropic eyes of youthful individuals. The vigor of their ciliary muscles leads to spasmotic contraction. This contraction increases the curvature, and consequently the refractive power of the lens, making the eye *apparently* myopic. Excess of close work is the inducing element of the condition. It is frequently accompanied by headache and pain in the eyes. Its treatment is not always easy. In myopes the correction of the refractive error usually has the desired effect. In other instances it is sometimes necessary to resort to the use of atropine for a while to relax the spasm. Astigmatic individuals in an effort to procure better vision sometimes allow their eyes to get into this same condition of spasmotic accommodation. The correction of the astigmatism usually relieves them.

The more frequent cause of headache in astigmatic individuals is supposed to be an irregular contraction of the ciliary muscle endeavoring to equalize the corneal error by changing the refractive power of the lens to a condition opposite to the one of the cornea. As a rule there is a persistent headache, which, however, is most noticeable when the eyes have attentively observed some objects for a time, as after watching a theatrical performance, sight-seeing in a strange place, etc. The eyes have a feeling of sand in them, they burn and may begin to pain. This is followed by pain in the head, usually in the occiput, but also in the vertex and frontal region. The low powers of astigmatism in which the vision is perfect, or almost so, are more frequently the cause of headache than the cases of higher degree. In the latter the individuals are satisfied with the poor vision which they have and make no effort to correct it by muscular action. Astigmatism is usually accompanied by more or less myopia or hypermetropia.

The use of glasses in astigmatism brings about most satisfactory results. Individuals who have suffered for months with headache, and perhaps other nervous symptoms, are usually relieved at once by the proper adjustment of glasses.

In deciding whether the eyes are the disturbing elements in the production of headache there are several points which should be determined.

1. WHETHER THE VISION FOR THE DISTANCE IS GOOD. In the absence of a test card, upon which the letters are numbered according to the distance at which they should be read by a normal sighted eye, the vision can be approximated by comparing it with that of your own eye. Knowing the acuteness of your own vision you can, by allowing your patient to read some neighboring signs, get an idea as to whether his vision for the distance is near normal or not. If it be good, it would exclude the possibility of myopia and astigmatism with the exception of the lowest grades.

2. WHETHER THE PATIENT IS ABLE TO READ PRINT AT THE PROPER DISTANCE WITHOUT A STRAIN. If, when you hand him a newspaper, he holds it as far as possible from the eye, you would naturally suspect hypermetropia or presbyopia. We should be able to read newspaper print as close to the eye as eight inches, so that when reading or other close work is done at the correct distance (twelve inches) there is no strain on the eye. If, on the other hand, the individual brings the print very close to the eye, there may be a high degree

of myopia or one of various conditions in which the vision is reduced, where by bringing the object closer he expects to enlarge the images. Regular or irregular astigmatism, opacities of the cornea, and changes in the interior of the eye are some of the conditions responsible for this manner of reading. The individuals frequently suffer with asthenopia.

3. WHETHER THE FUNCTIONS OF THE EXTERNAL MUSCLES OF THE EYE ARE NORMAL. A rough test can readily be made of the strength of the muscles and the mobility of the eye by getting the patient to move his eyes to one side and then the other, following your finger as far as is possible when carried to the extremes of the field. The outer corneal margin should reach the outer caruncle during the effort in that direction, and the inner margin the inner caruncle in the effort in that direction. Increased or diminished mobility in either direction indicate almost without fail some refractive error. In hypermetropia we sometimes see the movement inward increased very much, while in myopia there is often a weakness of the internal muscle. Either condition may bring about severe head symptoms.

A simple way also of testing the strength of the muscles, and one especially adapted for the cases in which the deficiency is less marked, is to get the patient to fix your finger with both eyes, and then rapidly screen one eye with your other hand. The weak muscle will rest, and the eye behind the screen (your hand) will deviate toward the strong muscle. In removing the hand the eye resumes with a rapid motion toward the side of the weak muscle its natural position for binocular fixation. Persons in whom the muscular balance is not perfect, that suffer from recurring headaches, should be subjected to a thorough examination.

Summing up the tests and the significance of the conditions that we are apt to find we can say, that where an individual has perfect muscular balance his vision for the distance is normal, and he can read ordinary print at from eight to twelve inches comfortably, the eyes are in all probability not the disturbing element. The tests spoken of are rough, and will not allow positive exclusion of refractive errors by finding the functions referred to normal. Low grades of astigmatism, which show practically normal functions, sometimes give rise to the most severe and annoying symptoms.

It is not my object to enter more fully into the treatment of the various conditions of the eye which may be productive of headache, as

this would be of little interest to the general practitioner. Nearly all eye headaches respond promptly to treatment, which usually consists in the wearing of glasses. In carrying out the treatment we meet with a certain aversion against the use of glasses, especially on the part of the female sex. Ladies object to the use of glasses on account of the cosmetic effect. The layman usually harbors the erroneous idea that the longer he keeps from wearing glasses the weaker will be his final lenses. When the aversion has once been overcome, and they have found relief in the use of their spectacles, they usually see the folly of their false pride. They become more and more dependent upon their glasses, and if they cease using them for a time asthenopia is almost sure to follow. It is caused by the fruitless effort to get the distinct images for which the eyes have, by the use of glasses, acquired a taste.

LOUISVILLE.

PATHOLOGY AND TREATMENT OF PRURITUS.*

BY DR. DE WANNENAEKER, OF GHENT.

Considered only as a symptom, without reference to the cause which has produced it, we may define pruritus as "a disorder consisting in sensations of smarting, tingling, and burning, coming on in attacks which are more or less frequent and prolonged."

The frequency of this symptom and the disturbances, both physical and psychical which often follow in its train, make it a subject of very considerable practical importance. It can not fail to be of interest, therefore, to state briefly the accepted notions concerning the pathology of pruritus, and to deduce from them some consideration pertaining to its treatment which may aid the physician in relieving often, and sometimes in curing, those unfortunates who are afflicted with this trying infirmity.

It is generally admitted that pruritus is the expression of an irritation of the nerve terminals within the skin, of the nerve fibers, or of both conjointly.

This irritation may be determined by very varied influences, mechanical, chemical, toxic, etc. It would be superfluous to describe the itchings produced by the stings of insects or by the contact of certain plants; those which accompany or follow the evolution of very many of the dermatoses, those which follow the ingestion of certain

* Translated from the *Belgique Medicale*, No. 45, 1896.

articles of diet, the influence of cold, certain general diseases, such as diabetes, icterus, Bright's disease, or disorders of the genital or intestinal apparatus, etc.

From an etiological standpoint, therefore, the nervous irritation which underlies every case of pruritus manifests itself under conditions and in circumstances of the most varied character. In the absence of a more exact classification, we may provisionally arrange the various varieties of pruritus into the following groups: (1) Primary pruritus which appears without any cutaneous eruption; (2) Secondary pruritus which accompanies or follows some one of the dermatoses.

Although there is no doubt that there are idiopathic forms of pruritus which appear spontaneously in the absence of any affection either general or local, true neuroses which we should classify as primary pruritus, this is certainly not common. The greater number of cases of primary pruritus we consider to be either purely symptomatic of a local disease (a leucorrhœal flow), or of a general affection, (Bright's disease, diabetes, icterus, etc.).

It is generally easy to make the diagnosis between primary and secondary pruritus. In the secondary forms we will observe the presence of cutaneous lesions to which the itching is but an epiphenomenon; sometimes we will find an eczema, a psoriasis or an urticaria, and sometimes that the various local lesions have preceded the pruritus. Besides the itching will usually have an acuteness proportionate to the severity of the lesion which causes it, and be confined to the seat of the primary eruption.

A functional disorder of the skin consisting solely in itchy sensations without previous alteration in its structure, whether it be idiopathic or intimately associated with a general or a local disease, will usually justify us in recognizing a primary pruritus. If we add to these characteristics the greater intensity of the exacerbations, the tendency to spread and to vary in location, we shall be able nearly always to make a sure diagnosis.

There is no essential difference in the behavior of the primary and the secondary forms of pruritus. In either case, according to the severity, the duration, the frequency of the exacerbations and the sensitiveness of the patient, it may affect the general health of the individual either by a change in the physical condition (emaciation, insomnia, nervous exhaustion), or the psychical state (excitement, depression, even to the extent, sometimes, of insanity and suicide).

A knowledge as complete as possible of the causative factors which have given rise to the pruritus will show us the rational course to follow in its treatment.

In the secondary or symptomatic itching of cutaneous diseases the treatment merges into that of the primary disease. Since the cause of the nervous irritation, and hence of the itching, springs from the morbid eruption, the treatment and cure of the primitive affection suffices to remove the pruritus.

Thus we have often seen a stubborn pruritus disappear at the cure of an eczema or a lichen, etc. Or the pruritus may be symptomatic of the presence of insects, parasites, or the acarus, the removal of which causes the discomfort to cease.

There are, however, cases of secondary pruritus in which the cause can not be removed. Such is the case, notably, when the primitive disease is one which is not well understood, or which is beyond our therapeutic resources. A good example of this is a psoriasis accompanied with itching, in which, it is true, we may diminish the morbid signs and yet not obtain a complete cure.

Such cases are very similar as regards treatment to those of primary pruritus. In both the cause of the nervous irritation is not clear, and we are obliged to institute a purely symptomatic treatment, and of this we shall have a few words to say.

This symptomatic treatment may have under certain conditions, which to be sure are rare, a truly curative effect. We may instance, as proof of this, the very highly curative action of the antiseptics as recently shown by Ruge in the case of certain forms of pruritus of the vulva. Although the macroscopic and microscopic examination does not give any ground for attributing such pruritus to micro-organisms, there is no doubt, however, that a great deal of the vulvar pruritus which has heretofore been considered idiopathic is due to the presence of bacteria.

The indisputable proof has been furnished by Ruge, who by the use of an energetic and prolonged antiseptic treatment has been able to cure nearly all of the cases which have come under his observation. In order to be able to begin the treatment of a primary pruritus in a rational and truly scientific way, we should be able to determine the cause which gives rise to the nervous irritation.

Aside from the idiopathic pruriginous affections of true neuroses the attempt to explain the pathogenesis of the other primary forms

has given rise to a great variety of hypotheses. That which seems to us most probable attributes the nervous irritation to the action of a blood serum adulterated by toxic products which are manufactured, under certain conditions, within the organism. This hypothesis tallies very well with the observed facts and with the conditions which evolve a primary pruritus.

The generalization of pruritus, its frequent appearance and re-appearance in certain localizations on various hours and various days, its aggravation or its improvement under certain systems of diet, or as a result of a certain food or a certain drug, as well as the modifications in the composition of the blood, which are conceded to occur in the general diseases which are often accompanied by pruritus (icterus, diabetes, gout), seem to argue in its favor.

Whether this modification of the blood consists in an increase of the amount of uric acid contained in it (Al. Haig), in a diminution of its coagulability, or some different kind of change, it is none the less true that this hypothesis explains the appearance and course of the pruriginous symptoms in the best and most satisfactory way. Be this as it may, the symptomatic treatment which we are obliged to use in default of an exact knowledge of the mechanism of production of the pruritus seems to us to corroborate the hypothesis of an alteration of the blood. In fact, aside from the regimen appropriate to the constitution of the patient, the drugs which up to the present time have proved most efficacious in the treatment of primary and secondary pruritus are those which exert either a sedative effect upon the nerves or a direct action on the blood. In the first category we may mention chloral, cannabis indica, and gelsemium. And in the second we are obliged to give carbolic acid the pre-eminence; and next the derivatives of tar which have a double action, antipyrine, phenacetine, etc. Starting out with the idea, so universally accepted, that carbolic acid taken internally seems to act directly upon the phenomena of pruritus (Brocq), we have, in addition to the appropriate local and dietetic treatment, for some time past made use of a product resulting from the combination of salicylic acid and acetyl-paramidophenol. We refer to salophen. The use of this drug has yielded us, in addition to some failures, some results which are very encouraging and some which are indeed very suggestive.

We do not know what is the nature of the action of salophen. Are we indebted to the action of the salicylic acid especially for the favor-

able effect in some of our cases? Of course this favorable influence could be readily understood since a large number of authors assign a prime value to the gouty diathesis in the production of certain forms of pruritus, and the administration of salicylic acid or of salicylate of soda would thus be naturally indicated. Or shall we indeed attribute the result to phenol? It is very venturesome to decide in this matter, especially as the decomposition of salophen into its constituents within the organism is far from being absolutely proven. Nor are we sure that the action of salophen may not be that of a sedative to the nerve terminals or perhaps that of an antitoxin. Whatever it may be and however developed, the action of salophen is undeniable and striking. This effect will be shown in the clearest way by an account of the following cases, in which the results obtained were almost immediate.

1. Male, aged fifty-one years, March, 1896, messenger, alcoholic and gouty subject, has suffered from common prurigo for the past fifteen years, following a stay in the Dutch Indies. The patient is tormented by almost continuous itching, which is usually worse at night, and for which he has made use of a great variety of remedies. Treatment: appropriate diet, starch baths, and salophen internally. Dose, 5 grams per day. At the end of two days the itching had ceased. Seven days after the patient had stopped taking the salophen his discomfort returned, but yielded again when the medicine was resumed. In this case the good effect of salophen lasted only about a week, but the effect was very prompt and energetic.

2. Male, thirty-five years old, May, 1896; patient is obese; has suffered for ten days from an urticaria which developed from some unknown cause. The intermittent urticarial eruption has alternations of improvement and exacerbation. Under the influence of local treatment and appropriate diet a slight degree of improvement was gained, but, the pruritus persisting, we prescribe 4 grams of salophen, to be taken during the course of the day. By the first evening the itching and the eruption had disappeared and did not return.

3. Male, thirty-one years old, May, 1896; gouty subject. Several years ago was attacked by a psoriasis, the annual recurrences of which are very acute and accompanied by extremely violent itching which affects nearly the entire surface of the body. It is in such conditions as this that certain authors have recommended the administration of salicylate of soda, but the results are very unreliable. In the case of our patient we tried salophen in doses of 4-5 grams per day, with

the result of causing the almost complete disappearance of the eruption in eight days and at the same time stopping the itching. Since then we have tried salophen in psoriasis on several cases, but without obtaining any very evident results.

4. Male, forty years old, January, 1896; commercial traveler; diabetic subject. Complains of a very intense generalized pruritus which has not been relieved by any treatment up to the present time. Appropriate diet will produce a slight relief from the distress, notwithstanding which the itching is so intense that the patient begs for further treatment. In addition to the restriction of diet 5 grams of salophen were administered daily. The influence of this medication was so marked that the patient returned at the end of three days to thank us, saying that he has not felt so well for many months. Since this time the patient has used the drug intermittently and says that he would not be willing to do without it.

5. Female, thirty-six years old. Post-auricular, weeping eczema of the seborrheal type. The patient is obese and gouty. The eczematous eruption itches violently, but this symptom entirely subsided after treatment for two days with salophen and local cleansing measures.

We have used salophen in several other cases of eczema with pruritus and have nearly always obtained a notable diminution of the painful itching.

These results, some of which, especially cases 1, 3, and 4, are very suggestive, afford evidence of the utility of salophen given in large doses (4-5 grams daily) as a remedy for pruritus. Of course we have observed cases which resisted this treatment, yet we are able to assert that in certain conditions, which we are as yet unable to define with precision, salophen offers a resource which should not be neglected by the physician who is anxious to relieve the unfortunates whose lives are made unbearable by such obstinate and painful pruritus.

LOUISVILLE.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Orthopedic Section, February 19, 1897.

Dr. A. B. Judson, on taking the chair, said: In these times of activity in scientific discovery it is necessary for us to be alert. Let us practice condensation in our papers, so that important points will stand out and compel discussion. I propose a rule of fifteen minutes for a brief paper, thirty minutes for a long paper, and five minutes for remarks in discussion. Let us also be moderate in discussion. A is obviously unreasonable in his theories, B undoubtedly adheres too closely to tradition, C and D evidently are after the almighty honorarium, E is visibly prone to follow strange foreign gods, and F, alas! has an unfortunate way with his patients which leads to certainly dubious results. But each one of them knows more about orthopedic surgery than the wisest man twenty-five years ago, and they doubtless have a generous regard for each other and the remaining letters of the alphabet.

Dr. Samuel Ketch read a paper entitled Remarks on the Orthopedic Treatment of Spastic Paralysis in Children.

Patients who are thus affected are those whose mentality is (1) *nil*, (2) diminished, and (3) normal or nearly so. The treatment should include special education of the muscles. I have never seen any advantage from the use of electricity in any form. If used at all, constant current may have a good sedative effect. Massage has but little value in these cases. Mechanical treatment is directed to improvement in locomotion or reduction of deformity, and produces its best effects in patients whose intellects are least impaired, and in deformities and disabilities of the lower extremity, especially when the judicious use of the superincumbent weight corrects the elevated and inverted feet. Tenotomy is certainly a useful resort. Opposition to it is based on theoretical grounds, and the results in patients who are not proper subjects for operation or whose after-treatment was neglected. With growth there is a lessening of the spastic element, and the degree in

which this has been displaced by a fixed deformity should be considered in undertaking mechanical or operative treatment. Patients in whom the deformity is the result of marked spasm resist treatment or are liable to relapse. Apparent mental improvement occurs with better locomotion and general improvement.

DISCUSSION.

Dr. Frederick Peterson (from the Neurological Section): A great deal may be done by pedagogy or education of the muscles by efforts of the will, by active, not passive movements, as for example, using the typewriter or playing the piano in the case of a paralyzed hand.

Dr. William M. Leszynsky (from the Neurological Section): I have seen no benefit from electricity. More can be obtained from efforts of the will. Persistent efforts to walk are sometimes sufficient to restore the function of the muscles. In cerebral palsy, of course, little can be done.

Dr. R. H. Sayre: I have found faradism a good way of giving gymnastic exercises to muscles not under control of the patient, as one of the means of pedagogy of the muscles. After various tenotomies to place the parts in normal relation to each other, we can do a great deal in the way of educating these muscles.

Dr. V. P. Gibney: In the prevention of these deformities further advance is to be sought in researches into the underlying neurological condition.

Dr. H. L. Taylor: Benefit is to be derived not only in children but also in adults from mechanical treatment and tenotomy. The contraction is not easy to control by braces; it will return when the brace is removed. Tenotomy not only makes it possible to retain the foot in position, but has a decided effect upon the spasm. The tendon is cut for the specific purpose of relieving the spasm. A very marked mental improvement follows this treatment.

Dr. H. W. Berg: As many of these cases accompany idiocy, pedagogy of the muscles will apply most aptly. The sense of sight should be developed by bright colors; hearing, by the use of bells, and increased motor ability developed by repeating certain motions a great number of times. Years of patient toil may thus be well spent. I am rather in favor of galvanism. In the results of meningeal hemorrhage, education of the muscles is "love's labor lost," and, while tenotomy here has a place, the treatment is radically different from that of patients in whom idiocy accompanies spastic paralysis.

Dr. N. M. Shaffer: As long as approximately normal movements can be obtained by passive motion, tenotomy is not needed. In time, however, the spastic contraction becomes a contracture with permanent deformity, together with improvement in the mental condition. It is only where these changes are observed that tenotomy is indicated, and the operation is then followed by much better results than when done at an earlier stage. Radical improvement occurs with growth as the result of the general changes which occur every seven years. For these reasons the time at which an operation should be performed is an important question, and a delay of two or three years sometimes secures a distinct advantage, passive exercise being practiced in the mean time half an hour or an hour each day.

Dr. Peterson: In these cases the paralysis is not to be considered as the result of the idiocy. Degrees of idiocy, palsy, and epilepsy are all symptoms of cerebral injury received before or during parturition, or within two or three years after birth. Idiocy is a symptom often associated with spastic paralysis. In idiots we find, sclerosis, strophy, and cysts but not hemorrhage. In spastic paralysis, while we find meningeal hemorrhage, there are few cases in which deficient development of the brain is found *post-mortem*. In these cases we have no irritability of the spinal cord but rather exaggerated reflexes from cutting off of inhibition. Mental improvement often follows education of the muscles, but where it attends any muscular change from contraction to contracture it is probably a coincidence. As these muscles do not react so well with the galvanic current, the faradic would give them better exercise. The former often irritates the skin, but children rather like the latter.

Dr. Ketch: The benefits of special education of the muscles are best obtained in the schools conducted for the instruction of the feeble-minded.

Specimen Showing "Secondary Pott's Disease with Compression of the Cauda Equina, following Empyema." Dr. George R. Elliott presented a specimen from a man twenty-eight years of age, who had tubercular involvement of both lungs and purulent exudation into the right pleural cavity. Later there were slight lumbar kyphosis, slight motor paralysis of the lower extremities, and pain and knee-jerks varying with the position of the patient. While lying on the right side pains ceased, and knee-jerks returned and disappeared when he was lying on the left side or back. At the autopsy the right pleural cavity was found filled

with pus and an extra-dural sinus extended from the tenth dorsal vertebra, where it communicated with the right pleural cavity, to the second lumbar vertebra. The tenth vertebra was carious, and the fourth and fifth lumbar were softened, with a small abscess cavity separated from the cauda equina by an area of pachymeningitis externa caseosa. The central surface of the dura is intact. The extra-dural sinus rested upon this caseous mass and did not mix its contents with those of the extra-pachymeningitic abscess cavity. No microscopic degeneration of cord. Points of interest: (1) Entrance of pus from pleural cavity into vertebral canal, the usual order reversed; (2) dural secondary involvement of vertebral column; (3) compression symptoms varying as the patient changed his position, with varying quantity of pus in the epidural canal which communicated with the pleural cavity containing pus. The patient had lung trouble before any signs or symptoms of vertebral caries appeared. Whether evacuation of the pus had been a part of the treatment, Dr. Elliott could not say, as he did not see the patient during life.

Dr. Shaffer related a history in which an adult man, who had caries extending from the seventh to the eleventh dorsal vertebra and an abscess over the ribs. Every three or four weeks he had a cough with expectoration of fragments of the vertebra, the general health remaining good.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

†stated meeting, Friday, April 2, 1897, Dr. S. G. Dabney, President, in the chair.

The essay of the evening, "Abscess of the Liver," etc., was read by John G. Cecil, B. S., M. D. [See p. 281.]

DISCUSSION.

Dr. J. B. Marvin: Abscess of the liver is a very interesting subject, and has been gone over in a very thorough manner by the essayist. At the outset I think he has made his division a little too hard and fast in regard to tropical abscess. In some remarks made to this society many years ago I exhibited a specimen and made a point which has certainly occurred to every one, that the so-called tropical abscesses occur with comparative frequency up in this country, they are not confined to the tropical regions. I have not always found a distinct

*Stenographically reported for the American Practitioner and News by C. C. Mapes, Louisville, Ky.

history of dysentery in these cases. The case of abscess of the liver which I saw, and is referred to above, occurred in the city hospital; there was no dysentery, and on account of the gastric symptoms a diagnosis of cancer of the stomach had been made. There was considerable enlargement in the region of the liver, and a tumor was suspected. At the autopsy it was found to be a large abscess of the liver, weighing eight pounds.

Two points in connection with the diagnosis of abscess of the liver the essayist did not emphasize as strongly as he might: There is probably no condition of the liver except one, acute yellow atrophy, which is so rare, and which makes its own diagnosis in a few days, where you have fever and a chill, except abscess. With any trouble about the liver having a record of chills and fever, I would strongly suspect an abscess. Of course the doctor speaks of that, and also of suppurative cholangitis, and even in this form the symptoms may come on so quickly that it will help in making the diagnosis. When the abscess is of any considerable size, not only do you get a board-like rigidity of the muscles and pain over the region of the liver, but very frequently an edematous condition such as you would get with empyema lasting for any length of time higher up.

Another point: I happen to have seen two cases of subphrenic abscess recently. One died, and I had an opportunity to see the *post-mortem*; the other case made a good recovery, discharging itself through the lung. In abscess of the liver not only do you get the points made out by Dr. Cecil, but there is generally a cone-shaped line of dullness going up anteriorly and coming down in the axillary line, whereas in an abscess of the lung or empyema it is more apt to go straight around behind, and the liver dullness will run higher up in front, coming down cone-shaped. This was admirably shown in a case I saw recently, the line of dullness could be easily mapped out as I have described.

Dr. J. A. Ouchterlony: The subject is one of great practical interest, and of course the more we see of this disease the more we realize what numerous aspects it may present. It is a very large subject, and we may look at it from many different points of view, and classify it in many different ways, according to its cause, according to its seat, and according to its clinical course. I would emphasize first that abscess of the liver is hardly a disease, but is the result of a disease, and that this is not always the same. To the old notion of parenchy-

matous inflammation, Dr. Demetrio Mejia, in 1883, added another which he called an acute interstitial hepatitis. Now, clinically, I have come to classify abscesses of the liver in this way: first, those characterized by very acute symptoms; secondly, those attended by moderately acute symptoms; thirdly, those pursuing a chronic course but having a good many symptoms to which the abscess gives rise. Then there is another form which is more difficult, that is "latent abscess," where the abscess is somewhat central and where there is but little enlargement of the liver, where there is absolutely no febrile disturbance that would call attention to it; and then the form that Dr. Cecil mentioned, the subphrenic. I wish to say in regard to subphrenic abscess, that every one of the cases I have seen has been characterized by the formation of a nodulated enlargement in the region of the ensiform cartilage. The first case of the kind I saw a great many years ago in a servant of a family which I attended; it looked like a bunch of grapes under the skin; each individual prominence was quite tense, and as I had never seen such a case before I was somewhat puzzled. I did not think it could be malignant; the patient being quite a young subject. All of a sudden one day it ruptured and a great mass of pus was discharged, followed by a good recovery. Afterward I saw a number of other cases. One case occurred in a prominent gentleman of this city, whom I saw in consultation with my friend Dr. John B. Richardson, and the same peculiar prominence in the region of the ensiform cartilage was observed here, which was aspirated and a quantity of pus evacuated.

I may have met with cases such as Dr. Marvin mentioned without having realized that they were subphrenic abscess, but in all cases where I made the diagnosis I found the condition just described. Latent abscess, as already mentioned, is exceedingly obscure. Hammond, of New York, a number of years ago called attention to it. For instance, I have seen cases where melancholia occurred for which there seemed to be no cause, where there was interference with nutrition and darkening of the complexion owing to increased pigmentation. In such I thought it a good plan to go into the liver with an aspirator, and certainly in a number of the cases the effort was rewarded with finding pus.

The trouble certainly has not always been preceded by dysentery in my experience. I have a patient under my care now upon whom Dr. Roberts operated about a week ago. The case is of three months' duration. The attack began with a chill, followed by pain and fever, and

when he came under my care I found well-marked enlargement in the right hypochondriac region. Both Dr. Anderson and Dr. Roberts saw the case with me, and there was no question about the diagnosis. One thing of interest in the case was that both anteriorly and posteriorly we found decided friction sounds, showing that there was either some parahepatitis giving rise to roughness of the peritoneum, or else there was anteriorly some irritation of the pleura, as there certainly was posteriorly; for here there was a very decided friction sound. The presence of a friction sound shows that there is no effusion in the pleural cavity.

I do not know whether Dr. Cecil said any thing about the prognosis, but so far as my own observation goes I have found that the larger the abscess the more unfavorable the prognosis. The more promptly the diagnosis is made, and the earlier the contents of the pus cavity are evacuated, the better for the patient. Of course multiple abscesses, arising as they usually do in connection with pyemic or septic conditions, are much more unfavorable than single abscesses, even when the single abscess happens to be larger. I have seen some very large abscesses that terminated favorably, and have seen small abscesses which terminated unfavorably. Especially is abscess likely to terminate badly when dysenteric symptoms develop. I do not remember to have seen a case recover where dysenteric symptoms developed secondary to the abscess.

I want to mention one case which throws some light upon the subject by showing the difficulty in making a diagnosis sometimes. Many years ago I remember a lady patient who presented several evidences of leucocythemia. The number of red blood corpuscles was very much reduced, the white corpuscles increased in number, and there was a decided enlargement of the liver. The liver was tense, there was no tenderness whatever, and the case went on to a fatal termination. When the autopsy was made I found to my great surprise that instead of having to deal with an hypertrophied liver the organ was simply a large sac of pus, but it was so tense that no fluctuation could be obtained. The combination of the leucocythemic condition of the blood with this condition of the liver naturally enough at the time led to this misconception as to the condition of the organ. In the light of subsequent experience I think I would have been very certain to have introduced an aspirator before making up my mind as to the nature of the hepatic enlargement.

Dr. T. H. Stucky: The last case reported by Dr. Ouchterlony recalls a case I exhibited before this society three or four years ago. There was a large tumor over the region of the stomach, and, out of twenty-one members present, Dr. D. T. Smith was the only one who suggested it might be abscess of liver. It was a pulsating tumor, quite large and very tense, and a variety of opinions was expressed as to its probable nature. The patient was in the medical ward at the City Hospital, and the following day was transferred to the surgical ward. Dr. Cartledge operated, and removed fully a half gallon of pus. There was no enlargement upward, it was downward, outward, and toward the left.

Dr. W. O. Roberts: Dr. Stucky's case is similar to one I presented to this society, and we all made a guess at the diagnosis. In that case the enlargement was downward, forward, and to the left. I made an incision the next day, and found a large quantity of pus. It was a parahepatic abscess.

Dr. F. C. Wilson: There are only one or two points to which I desire to call attention. In those cases that are associated with dysentery, where no doubt the trouble used to be considered as septic in character, thought to be due to septic matter of the dysenteric ulcers carried through the portal circulation lodging in the liver, giving rise to pyemic focal infection; one favorite plan of preventive treatment, anticipating this condition, or where fear is entertained such results are about to occur, has been the use of cold injections, ice-water injections, with the double idea of relieving the heated condition of the liver by cooling the portal circulation in its passage toward the liver, at the same time washing off or cleansing the abraded surfaces. In the light of more recent bacteriological investigation it seems to me the more plausible theory of the formation of pus in these abscesses would be from absorption of the bacillus coli communis, which is really not so insignificant as most persons believe, but may become the source of infection in many instances, and it may be the cause of the trouble in these cases which were attributed to the absorption of simple septic matter. Washing out the rectum and flushing the colon no doubt might serve a good purpose, in many cases that seem to be threatened in this way, as a preventive measure.

Dr. A. M. Cartledge: The literature on abscess of the liver, in my opinion, will in the near future be entirely rewritten. It is unfair to assume that observers have merely been in error in recording their

observations in the past. We should give a man the benefit of a doubt in his record; but really in the light of increased abdominal exploration and the work of modern abdominal surgeons should impress us with the fact that the opinions of physicians and the results of observations in years gone by in regard to abscess of the liver do not amount to any thing. To begin with, abscess of the liver, except as the essayist has described, is a condition seldom encountered in this locality. We know that such a diagnosis is frequently made; but how many of the cases would still continue abscess of the liver if proper exploration had been made? On the other hand, if patients die we know how unusual it is for physicians to make autopsies, so that the diagnosis is not verified. I have seen but one case that I absolutely know was abscess of the liver, which is the case described by Dr. Stucky. I have operated more than a dozen times for abscess of the liver, and found something else under thorough exploration.

As to the question of so-called subdiaphragmatic abscess: Strange to say, I saw an article recently, written by a London surgeon, claiming that such a condition was idiopathic. We can not have an abscess originating at this point except from rupture of the stomach, or ulcers perforating through the posterior wall of the stomach. These cases have been repeatedly treated for hepatic abscess, as have also many cases of inflammation about the gall-bladder which had undergone suppuration. It is not uncommon for a man to report several cases of abscess of the liver, where he has operated and evacuated a yellowish matter, and the patients recovered. Most of such cases are not abscess of the liver. This feature of the disease will be rewritten in the near future. Large circumscribed abscesses of the liver are very rare. It is probable, when such conditions occur, they are the result of trauma to a large extent. The liver is peculiarly favorably situated to render such purulent accumulations extremely uncommon, except as the result of traumatic causes. I have operated on a number of abscesses in this region, and have seen only one that I was satisfied was a true abscess of the liver.

Dr. Turner Anderson: As regards the etiology, symptomatology, pathology, etc., of abscess of the liver I am prepared to agree with what the essayist has said in his paper; and when we come to treatment I desire to give my hearty indorsement to every thing he has said. Abscess of the liver should be treated surgically, not medically. As soon as the aspirator locates pus a free incision should be made and

thorough drainage established. The first case of abscess of the liver that I ever saw discharged into the pleural cavity, then into the lung; the patient was treated a long time for phthisis, but ultimately made a satisfactory recovery. I have seen one or two cases where the pus was satisfactorily discharged because of rupture into the bowel, into the duodenum perhaps. Most of the cases I have seen that were not operated upon have died. The aspirator in these cases is absolutely of no value except for the purpose of diagnosis. It is simply absurd to talk about aspirating an abscess of the liver with the hope of doing any permanent good. I know that by experience, having treated a case or two in that way. One of the most satisfactory terminations of abscess of the liver that I ever saw was where a portion of the rib was removed, a thorough opening was made, and free drainage secured in this way. In that case I am satisfied there was great shrinkage of the liver, the patient was left with a crippled organ, at the same time one which went on discharging its function sufficiently well to enable the patient to live, and he is living yet.

The question of diagnosis, etc., has been so thoroughly covered that I do not care to go into further details, except to say that I do not exactly agree with what Dr. Cartledge has stated in regard to the character of the pus. Where we aspirate these cases we ordinarily get a character of pus that we can, as a rule, make out as such. Frequently in cases of abscess of the liver, where we have a tumor that is well defined, we can aspirate below the line of the costal cartilages for the purpose of diagnosis and secure a character of pus that is plainly from the liver. I treated a case years ago by means of the Vienna paste. I supposed I had accomplished a great deal when I secured adhesion in this manner. That case discharged pus for a long while through an opening just below the costal cartilages a little to the right of the gall-bladder, but drainage was imperfect, and the patient after a few months' suffering succumbed.

Report of Surgical Cases. Dr. William L. Rodman: I was called, March 27th at two o'clock, to see a man, aged thirty-five years who had a very large strangulated hernia. He gave the history of having had a hernia that had been reducible up to that time, when it came down and he was unable to reduce it; he was seized with symptoms of strangulation, and had not called a surgeon until the tumor had been out for a little more than three days. He had a pulse

of 130; shock was rather marked; but notwithstanding that I thought his condition was such as to justify an operation, and I went into the sac. It was very large, certainly as large as a child's head at full term, the amount of swelling being largely due to fluid within the sac, a considerable portion of omentum, and a portion of the large gut of the right side. The omentum was reddish, very much thickened, so it was divided into three sections and removed. The gut was found in surprisingly good condition. From the symptoms present I was prepared to resect a portion of the gut if it was found necessary, but the gut was in better condition than I anticipated to find it. The constriction, which was very tight, was found largely to press upon the omentum which protected the gut. I have never seen a more constricted external ring. Notwithstanding the fact that the patient went on the operating table with a pulse of 120 to 130, I thought it was best to supplement the herniotomy with a radical cure of the hernia, so did the Bassini operation. He has gotten along uninterruptedly well.

Case 2. The second specimen is almost half the inferior maxilla of a little child, a girl, five years of age, who was brought to me from the country, with the following history:

After getting over an attack of typhoid fever a discharge was noticed from the mouth, and necrosis was detected by the doctor who brought her to me, and I had no trouble after making an incision in lifting out this sequestrum. It represents almost half the inferior maxilla from the symphysis to the ramus. During her convalescence from fever she fell, striking the jaw. It may have been fractured.

Case 3. The third specimen is a section of an enlarged internal saphenous vein. It is one and a half times as large as my index finger. Twelve or thirteen inches of the vein was removed.

Case 4. The fourth specimen is an appendix which was removed two weeks ago. I report the case as one of some interest owing to the fact that I was able, notwithstanding a very decided accumulation of pus, to find the appendix, and to protect the general cavity from infection, and to extirpate the diseased appendix. This is the first in a series of six pus cases operated upon within the last sixty days in which I have made any attempt to remove the appendix. I saw here that it could be done without contaminating the general cavity, and, after walling off the intestines and the general cavity with iodoform gauze, I could feel the appendix so distinctly that I thought it better to remove it, as the patient had had three attacks of appendicitis before

this one. He has gotten along without any untoward symptom. I do not as a rule look for the appendix in pus cases, but this was so clearly off to one side that I decided to remove the appendix, and felt that in doing so I would not break up protecting adhesions and infect the peritoneal cavity.

Dr. F. C. Wilson: In the second case, had the patient been treated for typhoid fever with large doses of calomel, and had there been any salivation, according to the history?

Dr. W. L. Rodman: I do not know what line of treatment was followed during the attack of typhoid fever.

Dr. J. A. Ouchterlony: Necrosis must be rare during the course of typhoid fever. I have seen a great many cases during the last thirty-eight years, and have never seen a case of necrosis following typhoid fever or directly dependent upon it. Of course we have all seen cases of gangrene, and sometimes have seen necrosis following the gangrene, but it must be an exceedingly rare sequel of typhoid fever.

Gall-Stones. Dr. Lewis S. McMurtry: I desire to take up a few minutes of the society's time by presenting a rather unusual case of gall-stones. There are twenty-three of them, and the particular features of interest are as follows: The patient was a woman, aged thirty-six years, who had suffered with attacks of bilious colic for three years. During that time she had been repeatedly jaundiced. At the time she came under my care, a little over a month ago, she was profoundly cholemic and had been for six weeks, her urine was loaded with bile, and her general condition of nutrition was very low. The diagnosis was very clear. She had had numerous attacks of gall-stone colic, one recently, which had been severe.

I did a cholecystotomy and was confronted with several difficulties. The gall-bladder was atrophied and the stones had ulcerated nearly through. It was only necessary after getting the gall-bladder into the incision to simply touch it with the point of the knife and the stones were exposed, they having ulcerated nearly through the coats of the gall-bladder, and the latter was considerably atrophied. There was one stone in the common duct, and I had a great deal of difficulty in dislodging it. I succeeded, however, in milking it into the duct and finally working it out without opening the duct. I felt apprehensive that there was another stone in the duct, but there was so much thickening about the cystic duct and the common duct that I was not sure of it. The woman was in bad condition, and I did not care to prolong the

operation by further search, and in endeavoring to stitch the gall-bladder to the parietes I had to strip the peritoneum off the parietes and bring it down to meet the gall-bladder. The stitches would not hold, and I placed a rubber drainage-tube into the gall-bladder and packed around it with gauze to shut off the peritoneal cavity. To my gratification bile came through the tube promptly and liberally. The patient vomited excessively from the anesthetic, throwing up great quantities of bile. The stools had been almost white for some time, and it was a week before bile appeared in the stools. Her convalescence has been without accident; her skin cleared up promptly, and she has now gone home almost entirely well. The fistula has not closed, but is healing kindly. The amount of bile passing into the intestines is increasing all the time, and is now practically normal in quantity; she looks strong; pulse normal; she is being well nourished, and her recovery is assured.

I report the case simply on account of the unusual difficulties encountered in the operation.

Calculus of Wharton's Duct. Dr. J. Morrison Ray: I exhibit for your inspection a calculus of Wharton's duct which was removed a few days ago. It measures three quarters of an inch in length by three eighths of an inch in diameter. Both ends are rounded or oval in shape.

The history of the case is about as follows: A young man came to see me with a swelling just below his lower jaw, which was very tender on pressure, and he said he had had an abscess at that point on two previous occasions, and it had been opened. Finding considerable swelling under the tongue back and to the side of the frenum, I cocaineized the parts well, and made an incision, and evacuated a lot of pus mixed with thick mucous-like material. After evacuating the abscess, and getting the history that he had had two previous attacks, it occurred to me that there was possibly something to cause these recurring attacks, so I enlarged the opening by which I had evacuated the contents of the gland, and with a probe felt a gritty, hard substance. With a pair of forceps I took out this calculus from Wharton's duct by the side of the lingual gland, between the gland and the side of the tongue. This is the second case of the kind that I have seen.

Dr. W. L. Rodman: My experience is that calculi of Wharton's duct are very rare. I have seen but one such case, and that was sent me by Dr. Cheatham eight or nine years ago. I had occasion to look up the literature of the subject at that time. Gross states that in his

enormous experience that he had only seen two cases of stones in connection with ranula.

Dr. H. A. Cottell: I exhibited a salivary calculus to this society fifteen years ago. The specimen is now at the University of Louisville. It weighs, I should think, about two pounds. It was taken from the duct of Steno of a horse, and was sent to me by a doctor in the country.

Dr. S. G. Dabney: A gentleman came to see me, a few days ago, with symptoms pointing to trouble such as Dr. Ray encountered in the case he has reported. I made an engagement with him to make a more thorough examination, but he never returned. I have never seen a case in which there was a calculus in this situation. I have seen, however, two or three cases with obstructed salivary glands, and in carrying a probe into the orifice of the gland there was a little purulent-looking discharge. I will mention briefly a case that has a feature similar to this. A young man consulted me four weeks ago, and told me that he had a swelling on his jaw, that the swelling would come and go very rapidly within a few hours, and when it subsided considerable fluid would come out of his mouth. He came to see me only once; I tried to get a probe into the duct of Steno, but found a great deal of swelling about the duct, and could introduce a probe only about half the length of the duct. I have not seen the patient since. I think it more than likely the trouble has subsided temporarily, the stone has become dislodged, and saliva is flowing around it. Personally I generally probe these ducts; with a Bowman's probe it is not a difficult thing to explore the ducts of Steno and Wharton.

Large Fibro-cystic Tumor of the Ovary. Dr. Anderson: I present for your examination a very large fibro-cystic tumor of the ovary. I have had the patient under observation up to the time of the operation, March 22, 1897. The period is about thirteen years, she having been a patient of mine for a long time. She is sixty-five years of age at the present time, and the tumor was first detected thirteen years ago. I found it at that time in the right side of the uterus, it was quite small, movable, and I ventured the diagnosis that it was a subserous fibroid. Though the menstrual function had not been interfered with in any way, I advised at that time that the tumor be let alone. The patient's health was fairly good. I have had the case under observation from that time until the present and watched the continued growth of the tumor, which had been very rapid within the last twelve months, so much so that she consented to an operation.

I performed the operation March 22, 1897, and without any difficulty the tumor was lifted out of the abdomen and tied off. The pedicle was somewhat sessile, broad, and I deemed it advisable to deal with it in sections. I tied off the ovarian vessels first, then severed the pedicle in sections, removing the tumor in this way. The operation consumed three quarters of an hour from the time she was under the anesthetic until termination of the operative steps. The patient has had no unfavorable symptom; there has been no elevation of temperature, no increase in the pulse rate, and she is now safely convalescent. The abdomen was closed with buried silver wire sutures and with subdermal sutures of catgut. The abdominal incision, which was a very long one, extending one inch around and above the umbilicus, has united perfectly without the slightest sign of suppuration.

The tumor presents almost every characteristic that we can have in ovarian tumors. You will observe there are numerous calcareous deposits and masses of a fibrous nature.

Dr. L. S. McMurtry: It is always a privilege to see such a beautiful illustration of pathology, and further illustrates in technique and results what perfection has been attained in the treatment of ovarian tumors. Ovariectomy is now about the most successful major operation known to surgery.

Dr. W. L. Rodman: The specimen is one of the most beautiful exhibitions of multilocular, exogenous cysts that I have ever seen.

Dr. J. A. Ouchterlony: The subject of ovarian tumors is not in my line, but, as I listened to Dr. Anderson's report and the remarks following, my memory reverted to the days when the late Professor Henry Miller was alive, who not long before his death published an article giving a report of six cases of ovariectomy. With his rather limited experience at that time he spoke very unfavorably of the operation, and now, twenty-seven years having elapsed, it is the most successful major operation in surgery. It indicates the rapid strides surgical science has made, and to what perfection it has attained both as to pathology and technique.

Dr. T. S. Bullock: I had the pleasure of witnessing the operation, and can but repeat what Dr. Rodman has said, that it is one of the most beautiful specimens I have ever seen.

JOHN L. HOWARD, M. D., *Secretary.*

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"NEC TENUI PENNĀ."

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D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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THE STATE SOCIETY.

It should not be forgotten that the State Society will meet a month earlier this year than in former years, convening in May instead of June.

Secretary Bailey has secured promises which guarantee a rich and attractive programme, while the Committee of Arrangements have left and will leave nothing undone which can contribute to the interest of the session and the comfort and entertainment of the delegates.

The following communication from the Chairman, Dr. C. H. Todd, should be carefully read, considered, and heeded.

The Kentucky State Medical Society will meet at Owensboro, May 5th, 6th, and 7th.

On behalf of the physicians of Daviess County we cordially invite you to be present.

Arrangements are about completed by which a reduced rate will be given by the railroads throughout the State.

Delegates and visitors should purchase regular tickets to Owensboro, and at the time of purchase should procure from the agent a certificate showing that a regular ticket has been sold. This certificate should be indorsed on proper blank for that purpose by the Secretary of the meeting, and upon the presentation of this certificate, properly indorsed, to the agent at Owensboro, he will sell a special return ticket at one-third fare to all points in Kentucky.

The Committee have assurances that this will be one of the most successful meetings within the history of the Society, and will spare no pains to make it such.

Should you contemplate reading a paper, please send title without delay to Dr. Steele Bailey, Secretary, at Stanford, Ky.

OWENSBORO, KY., April 1, 1897.

C. H. TODD,
Chairman Committee of Arrangements.

There is no reason why the meeting at Owensboro shall not rival in numbers, zest, and quality of work performed, the best of the best meetings of recent years.

In our next we hope to publish the programme and such orders from President McChord, Secretary Bailey, and Chairman Todd, as their wisdom shall prompt them to issue.

THE SOUTHERN KENTUCKY MEDICAL ASSOCIATION.

This vigorous young medical society met in Hopkinsville on the 14th and 15th instant. The attendance was large, and work of excellent character was done. In addition to the regular membership, which in numbers now rivals that of the State Society, there were present not a few distinguished physicians and surgeons from Louisville, Nashville, St. Louis, and other distant cities.

Dr. B. W. Smock, of Oakland, the able and energetic secretary, writes us glowingly of the meeting, which he calls "the greatest in our history."

Through the kindness of the secretary and the courtesy of the authors we shall be able to present our readers in the near future with a report of the proceedings of this meeting, and the full text of a number of the papers read.

Kentucky is becoming rich in medical societies, and a good harvest in medical literature may be expected as a natural result.

JEFFERSON MEDICAL COLLEGE.

We are happy to learn that this time-honored institution has put itself abreast with the first institutions in the world by establishing laboratories for the pursuit of original research, and for special instruction of post- and under-graduates in pathology.

The new departure is thus described by the *North American*, Philadelphia, Pa., April 13, 1897:

The Board of Trustees of Jefferson Medical College has taken another forward step in adopting plans for a special spring course of instruction in the new laboratories of the college, and in making elaborate preparations for summer laboratory courses and for post-graduate teaching. The arrangements are that post-graduate instruction in the various sub-departments of pathology shall be open to holders of medical degrees only; that under-graduate instruction shall be given between May 1st and October 1st of each year, such instruction to be credited on next year's work; and that any student or graduate of the college who may show special ability may be appointed by the Professor of Pathology to do prize work in the laboratories, or work which shall be honored by publication as original investigation. In this way, without at all impairing the efficiency or restricting the scope of its regular winter course, the Jefferson College establishes a complete system of summer laboratory work. The importance of this to young men, of whom there are many who wish to make the most of their time, and to equip themselves as quickly as possible for the practice of their chosen profession, is too obvious to need pointing out. The new departure taken by the progressive management of Jefferson College will be widely appreciated and heartily approved. It is another proof of the vigorous vitality of a time-honored and justly-renowned institution.

Notes and Queries.

GOOD FOR SORE EYES.—For the first time in the history of this State a midwife was convicted and fined for neglecting to report to some physician or to the Health Commissioner the diseased condition of the eyes of a newborn infant.

It was only after much hard work and frequent visits to Annapolis that the committee in charge of the bill, the object of which was to reduce the cases of ophthalmia neonatorum and blindness, succeeded in having passed in 1894 a law which was for the benefit of the ignorant. Such a law had been in force for two years and only within the past few weeks was the first midwife caught and punished. Owing to the novelty of the law and the apparent or feigned ignorance of the woman in attendance the punishment was as mild as possible, but it will likely have a good effect in arousing other midwives to do their duty.

It is unnecessary to quote statistics to show how large a proportion of blindness is due alone to neglect of the eyes in the first few days of life, and the great efficacy of Credé's method. The full history of this case with the simple yet comprehensive law is here given.

Physicians should make it their duty not only to examine, treat, or report all cases, but should warn midwives with whom they come in contact of the dangers of neglect, and, what is more effective, of the extreme penalties which may be inflicted. The following is an authentic account of the case with the law attached:

The first trial for violation of the law enacted by the legislature of 1894, "To prevent Blindness in Infants," took place on Friday, November 26, before Justice Leyshon, of Canton. The prosecution was conducted by Dr. John S. Fulton, Secretary of the State Board of Health, upon information furnished him by Dr. Hiram Woods, of Baltimore. It developed in the trial that the infant, daughter of Henry and Pauline Seitz, of Highlandtown, was born in April under the care of a Mrs. Liersman, registered midwife. The child's mother testified that when purulency appeared on the fourth day, the midwife assured her it meant nothing serious, made no suggestion of the propriety of calling in a physician, advised the application of warm chamomile tea and breast-milk, and herself applied these remedies. When the baby was brought, in July, to the Presbyterian Eye, Ear, and Throat Charity Hospital, both corneas were sloughed. The case came under Dr. Wood's notice early in November. Mrs. Liersman, in her own behalf, stated that she had washed the child's eyes regularly and had advised Mrs. Seitz to summon a physician. She acknowledged having received from the Health Officer of Baltimore a copy of the law, and of the circular letter sent through this office some time ago by the Committee on Prevention of Blindness of the Medical and Chirurgical Faculty. This letter gave directions

concerning the care of infants' eyes, and dwelt upon the dangers of ophthalmia neonatorum. She said that she understood the law to require the reporting of cases of children born blind. The justice adjudged her guilty and imposed a fine of \$25 and costs. The law is as follows:

"*An Act to Prevent Blindness in Infants.* Sec. 1. Be it enacted by the General Assembly of Maryland: That if at any time within two weeks after the birth of any infant one or both of its eyes or eyelids are reddened, inflamed, swollen, or discharging pus, the midwife, nurse, or person other than a legally qualified physician, in charge of such infant, shall refrain from the application of any remedy for the same, and shall immediately report such condition to the Health Commissioner, or to some legally qualified physician in the city, county, or town wherein the infant is cared for.

"Sec. 2. And be it enacted, That any person or persons violating the provisions of this act shall, on conviction, be punished by a fine not to exceed one hundred dollars, or by imprisonment in jail not to exceed six months, or by both fine and imprisonment.

"Sec. 3. And be it enacted, That this act shall take effect from the date of its passage.

"Approved April 6, 1894."—*Maryland Medical Journal.*

AN ENORMOUS FIBROMA OF THE LARYNX.—Chiari (*Wein. klin. Woch.*, August 27, 1896,) recounts the history of a patient, aged sixty-one, who had been suffering for four years with hoarseness and difficulty of breathing, which had much increased during the last four months; he breathed and spoke best with his head bowed right forward. Laryngoscopic examination revealed the presence of a tumor $1\frac{3}{4}$ inch long by $1\frac{1}{2}$ broad, which appeared to arise from the right aryteno-epiglottidean fold, and which during expiration or phonation was pushed right out of the larynx so as to conceal every thing except the arytenoid cartilages and the epiglottis. It appeared to be soft in consistence, and to be built up of lobes from which little cysts could be seen protruding; it was pale red in color, with visible vessels on the surface. It seemed to vary in size from time to time. After some consideration Chiari decided to do tracheotomy, insert a Trendelenburg's tampon-cannula, and remove the tumor by the mouth with a hot snare. On cutting through the first two rings of the trachea, the tumor at once bulged into view, showing that it was larger than it had seemed. The introduction of the cannula was attended with asphyxia, and the operation had to be suspended while artificial respiration was performed. Eventually the whole growth was removed through the wound by means of a heated platinum wire and the raw surface lightly touched with the Paquelin cautery. The tampon and cannula were removed on the fourth day, and, except for the appearance of some little edematous swellings on the false cords, which were readily excised, recovery was uninterrupted; the patient left the hospital on the twenty-sixth day well and with a strong but some-

what rough voice. The tumor was as large as an apple, and was composed of connective tissue, having the structure of a soft fibroma. It arose from the right aryteno-epiglottidean fold and false vocal cord. It was extremely vascular, although at the operation there was little or no bleeding; its exact dimensions were 2 by $1\frac{3}{4}$ by $1\frac{1}{2}$ inch.—*British Medical Journal*.

KLEPTOMANIA.—Kleptomania, as a system of mental disorder, has long been recognized by alienists. Marc, who reported many cases half a century ago, recognized that people, in circumstances which should have placed them beyond temptation, stole from shops articles to them almost valueless, whose number and uselessness indicated mental disorder in the thief. According to many alienists, kleptomania is always a manifestation of degeneracy, an episodic symptom-complex. There are kleptomaniacs of this type who steal purely for the sake of stealing. At the same time, as Lacassagne points out, in the vast majority of kleptomaniacs, kleptomania is a morbid manifestation of certain neuroses and psychoses rather than a psychosis by itself. In many cases of so-called kleptomania, stealing is a manifestation of viciousness or feeble morality. Kleptomaniacs steal, but not all thieves are kleptomaniacs.—*Journal of the American Medical Association*.

MEETING OF AMERICAN MEDICAL PUBLISHERS' ASSOCIATION.—The fourth annual meeting of the American Medical Publishers' Association will be held in Philadelphia on Monday, May 31, 1897 (the day preceding the meeting of the American Medical Association). Editors and publishers, as well as every one interested in medical journalism, cordially invited to attend and participate in the deliberations. Several very excellent papers are already assured, but more are desired. In order to secure a place on the programme contributors should send titles of their papers at once to the Secretary, Chas. Wood Fassett, St. Joseph, Mo.

A DESERVED PROMOTION.—At a recent meeting of the Board of Trustees of the Jefferson Medical College, Philadelphia, Dr. J. Chalmers DaCosta was elected Clinical Professor of Surgery. Dr. DaCosta has been connected with the College for many years, and has recently been Demonstrator of Surgery and chief of the out-patients department. The new appointment is made in recognition of his long service and valuable contributions to surgical literature.

ICHTHYOL IN GONORRHEA.—Canova (University Medical Magazine) recommends in gonorrhea of the female injections of a one-half-per-cent solution of ichthyol.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ADVANCEMENTS IN ABDOMINAL SURGERY.*

BY AUGUST SCHACHNER, M. D., PH. G.

Demonstrator of Anatomy in the Louisville Medical College and Surgeon to the Louisville City Hospital.

A new discovery, suggestion, or idea is by no means necessarily an advancement; in fact, the majority of discoveries and ideas, whether in medical or in other lines, sooner or later fall flat, not so much because they have outlived their usefulness and have been replaced by others more advanced, but because they have never fulfilled the expectations which they originally have created. In fact, every discovery or suggestion is hailed with an *eclat* more or less exaggerated in its nature, and it is only after the pendulum has several times swung "to and fro" after it has passed a careful probatory existence that it can be assigned its true position, or perhaps it may lose all claims to a position among the advancements.

In this short paper it would be impractical to attempt a review or discussion of the many advancements which in the late years have been made in this the most prolific domain of surgery; therefore I will content myself with the consideration of but a few of these many advancements that have been made in this direction.

By far the best energies which have been invested in the development of the surgery of the abdomen have been directed toward perfecting the operations in connection with the gastro-intestinal canal.

* A paper read before the North Kentucky Medical Society.

Beginning with the experiments on gunshot wounds of the abdomen which were carried out independently by a number of surgeons was proven the justification of uniform interference in all penetrating gunshot wounds. The wisdom of such a uniform rule was for a time challenged by one of the ablest of American surgeons. The grounds upon which the challenge was based were, that in some of the cases the missile failed to do sufficient damage to necessitate a laparotomy, and, should death follow in such an instance, it would change the whole medico-legal aspects of the case. It would be difficult or even impossible to definitely determine whether the subject died from the effects of the original gunshot injury or from the effects of the exploratory incision which was made to determine the exact extent of the injury. Thanks to the perfections in the asepsis and manipulative details, these have made death from such an operation almost an impossibility, and subsequent investigations have proven that but a small per cent of cases escape intra-abdominal injury where the missile traverses the cavity. In addition, it was proven that the hydrogen-gas test was not infallible, and that its influence might be productive of great harm by aiding in the expulsion of intestinal contents. So that, after weighing both sides carefully, by far the best evidence pointed strongly in favor of uniform operative interference as the safest and most justifiable course.

For many years the resecting of a portion of the intestinal tract has been considered as an operation fraught with unusual dangers and difficulties. This dread has in the recent years largely disappeared until the results of intestinal resections have become as favorable as almost any operation in the abdominal or pelvic cavity.

For a number of years there has been raging a controversy between the advocates of the suture upon one hand and those advocating the device upon the other. The adherents of the suture have insisted that this method of intestinal resection should in all ordinary cases be allowed the preference, and that it alone is entitled to the dignity of a surgical procedure. They have furthermore insisted that the elements necessary for the procedure should be a needle, thread, scissors, and the operator's ingenuity, and not a device which is introduced and which when employed practically supersedes the surgeon himself. Or, another way of putting it is, that the surgeon should do the operation entirely with his own ingenuity instead of partly or entirely depending upon the ingenuity (if you will allow the expression) of the device. I

do not mean to say that all forms of devices should be unconditionally abandoned, for in extreme emergencies some of the devices are capable of rendering invaluable aid, and, when we speak of favoring the entire method alone, we refer to the average cases with the exceptions ruled out. Simplicity has been urged as one of the strong points in favor of the device.

It has been said that many are capable of doing an intestinal resection by the aid of a device who would be unable to do the same operation unaided and wholly by their own ingenuity. In reply to such a criticism, we would insist that those who would resort to the device in preference to the suture, simply because they lacked the necessary ingenuity, should be denied all right to do the operation under any circumstance.

Ordinarily simplicity should be courted whenever consistent; but the use of the device, as mentioned, would certainly be the improper application of this rule. This opens up a marked defect in the training of the surgeon, a defect which we are happy to say is being recognized and acted upon. There was never a greater blunder made than to suppose that the education of a surgeon was complete without including a course in such manual training as may involve the manipulations in the average surgical procedures, the use of the needle, knife, hammer, and chisel. It is just as reasonable to suppose that one can become proficient in engineering or any of the arts by simply reading and observing, and then blundering ahead until a certain degree of perfection is reached, as it is to suppose that one can become proficient in the art of surgery by the same methods; and yet who would be willing to intrust themselves to the care of such an engineer or artisan thus educated? And how very unjust it is to acquire a training at the expense of the comfort and welfare of our fellow beings, when the same end can be reached without resorting to such sacred material as the lives of those who intrust themselves to our care.

Numerous plans comprising both devices as well as methods by means of the suture have from time to time been proposed for the resection of an intestine. The most notable among these are:

First: Mechanical Devices. (a) Dawbarn's Potato Plates; (b) Abbe's Catgut Rings; (c) Senn's Decalcified Plates; (d) Von Baracz's Turnip Plates; (e) Murphy's Button.

Second: Sutures. (a) Woelfler's Method; (b) Maunsell's Method; (c) Jessett's Method; (d) Paul's Method.

Among the mechanical devices remains but one which is entitled to any degree of permanency. The others have against them one or more objections strong enough to place them beyond the field of extended application.

The most promising of the devices is the Murphy button, and although this has its sphere of usefulness, there have been a number of objections entered against it, as follows:

(1) The contraction of the opening, especially in a side-to-side anastomosis. (2) The button acting injuriously by assuming the rôle of a foreign body. (3) The possibility of the button causing trouble by becoming arrested at the ileo-cecal valve. (4) The chances of the button dropping in the wrong direction, that is, into the stomach in a gastro-enterostomy, or into the isolated loop of the intestine in an intestinal anastomosis. (5) The possibility of the button not disengaging itself or of becoming arrested in some part of the intestinal tract. (6) "It makes the patient dependent upon the craft of the cutter rather than the skill of the surgeon." (7) The chances of the necessary pressure atrophy in failing to liberate the button.

Ordinarily we are not in favor of the Murphy button superseding the suture in the average cases of intestinal resection or anastomosis, but there are emergencies occurring in cases of invagination, volvulus or gangrene following a strangulated hernia, where it becomes imperative to offer relief at least perhaps temporarily in the shortest possible time. In such cases the Murphy button can render valuable services.

It must not be overlooked that, simple as the Murphy button appears, its successful use nevertheless demands careful manipulative handling. In fact some of the failures which have attended the use of the Murphy button were due to no other cause than an underestimation of the skill necessary for its successful employment. Aside from this the other indication for the use of the button is in cholecysto-duodenostomies, where for some reason it becomes necessary to make a communication between the gall-bladder and the duodenum independent of the common duct. In fact this seems to be its true field of usefulness.

There are practically but two methods now recognized for performing a resection by means of the suture alone. These are the methods of Maunsell and Woelfler, and the choice between these two lies entirely with the surgeon.

There is another feature in connection with intestinal surgery that has been fairly well settled, namely, that whenever it is at all permis-

sible the end-to-end method should be given the preference over the lateral anastomosis, owing to the dangers of subsequent contraction where the lateral method is employed.

Appendicitis. Much has already been said and written about this affection, and with all that has been said and written there yet remains enough unsaid to furnish the basis for a first-class article in itself.

There are but two points that I care to dwell upon in connection with this subject. The first is, that appendicitis is at all stages a surgical affection, and the other point is a plea for an early interference in all cases that do not show a decided tendency toward improvement at the end of twenty-four or thirty-six hours after the onset of the trouble.

In regard to the first point we have but to study what has gone before to realize the wisdom of considering this as a surgical affection. From the onset a surgeon should be in charge or in consultation in order to insure as much as possible the selection of the best time when operative interference should occur. This is the key to the successful management of a case of appendicitis.

What cases shall we operate upon, and when shall the operation be performed, are the two questions which practically cover the entire ground in the management of this affection. To be able to answer the first question conscientiously the attendant or consultant must have had the opportunity of observing the course of this trouble either from the operating-table or the *post-mortem* table, or both, for in this manner alone can we gain a true idea of the destructive changes which may occur in the course of this disease.

I do not wish to be understood as saying that every case of appendicitis is from the onset doomed to be operated upon, but I desire to go on record as saying that every case of appendicitis should be operated upon if by the recognized rules of treatment it fails to show a tendency to become arrested, or fails to improve at the end of twenty-four or thirty-six hours after the time of its real commencement. This course, while not insuring absolute protection in every case, has, however, been on probation for a sufficient length of time to justify its adoption. No doubt some may insist that it bears a flavor of rashness, and for a time I have been in favor of what I believed to be a more conservative course than the foregoing; but my late experience has removed all doubts as to the wisdom of early operations rather than to trust to nature and the few medical aids as sufficient to insure a recovery or even to limit the process so as to make the later operation, such as the incision and drainage of the abscess cavity, easier and safer.

It can not be denied that many cases of appendicitis recover through medical measures alone, and it must be admitted, on the other hand, that many are lost by relying entirely or too long upon medical measures, and that many recoveries of appendicitis are credited to medical measures that were not appendicitis at all, but some irritation due to a constipated state or some other condition simulating in a measure appendicitis. An instance of this occurred several months ago at a society meeting, where a member reported four consecutive recoveries of appendicitis by the use of high enemas, a measure which very often succeeds in relieving appendicular trouble.

None of these cases had any notable symptom justifying the claims of appendicitis, and all bore strong ear-marks of fecal impactions, which gave rise to symptoms that were referred to the right iliac region.

The wisdom of the two points just enumerated are clearly illustrated in a very recent case.

Mr. H. complained on a Saturday of an ill-feeling in the abdomen, but did not take to his bed until some time during the next day (Sunday). It was then that he was seized with most violent pains referred to the region of appendix, which were not entirely relieved with a half grain of morphia given hypodermically. His bowels were moved during Monday. On Tuesday night an operation was proposed and carried out. At the time of the operation, which was performed but a few hours after the two days had elapsed from the occurrence of the onset, the following condition existed: Temperature 102°, pulse 120, some pain in the region of the appendix, but this pain was but slight compared to what it had been, nor was the board-like rigidity near so great. There was a marked abdominal distension which began about eight or ten hours prior to the operation. Upon opening the cavity there escaped about a half pint of straw-colored fluid with flakes of lymph in suspension. Numerous adhesions had occurred between the intestines and omentum, but being of recent origin they were readily separated.

The manipulations were carefully performed, and during the same the appendix was discovered surrounded with about an ounce of pus. The appendix was about two inches long and about a half inch thick, dark red, and gangrenous in spots; at its base was an opening measuring about half inch in its diameter. It was removed, and the adjacent region of the abdominal cavity was carefully and repeatedly irrigated with warm, normal salt solution. During the first thirty-six hours

subsequent to the operation the outcome of the case was very doubtful, but the condition changed, and from then the recovery was uninterrupted.

I do not report this case in support of the two rules already mentioned; in fact these rules are by no means recent, but have been advanced a number of times by different writers. What this case does illustrate very vividly is the rapidity with which destructive changes occur, and the uncertainty of depending upon nature alone, or aided by a few medical measures.

Although operated upon about fifty hours after the onset, before half that time had elapsed it was already hopeless so far as medical measures were concerned. No rule should be proven by a few cases; it is only after a study and comparison of a large number of cases that we are able to draw safe and correct conclusions. Such a study has furnished abundant proofs in favor of early operations as the safest plan to pursue. If we operate early we can remove the appendix before general infection has occurred, while the trouble is still confined to the appendix alone. If we wait longer we may strike a period in the disease too late for an early operation and too early for a late operation; or, in other words, where the trouble in the first instance has extended beyond the appendix, and where in the second instance the protections which nature has thrown up were not sufficient to circumscribe the process as might be necessary in order to do a safe late operation, which usually amounts to nothing more than the drainage of an abdominal abscess without any reference to the appendix.

Pelvic Cavity. Many refinements in the surgery of the lower abdominal or pelvic region have been made in the recent years. Enormous or even large tumors have almost become a thing of the past; the methods of diagnosis together with the perfection of the operative details have entirely changed the face of the surgery in this region. Conservatism has become the guiding principle in all interference.

When, however, it becomes necessary to remove both of the appendages, no surgeon would think of allowing the uterus to remain to give rise to certain trouble later on.

One by one our cases that were operated years ago come back to us for the relief of the trouble which the remaining and now useless uterus is creating. In one is some form of displacement, in others it is a protracted recurrent hemorrhage, while a third has a stubborn inflammatory condition of the endometrium or perhaps some malignancy.

INTESTINAL INDIGESTION.*

BY GEORGE E. DAVIS, M. D.

The term digestion relates to the proteolytic and amylolytic action of the digestive ferments or enzymes in transforming the proteid and carbohydrate foodstuffs into soluble or diffusible products, changes rendering them capable of assimilation and utilization by the system.

A thorough knowledge of the complex processes of digestive proteolysis is of vital importance, because a proper understanding of the normal processes of the body aid us to better appreciate and more correctly interpret the abnormal or pathological processes to which the body is subject. The progress of physiological knowledge of the digestive processes has been materially aided in recent years by a more accurate technique in chemical methods. But even yet these processes are little understood, therefore you will pardon me for recalling to your minds some elementary facts of the digestive functions which in a sense are to-day "twice told tales." The exceeding prevalence of digestive disturbances has attracted my attention, especially in the last few years, and the more I investigate the more impressed I am of the importance and magnitude of this field for further investigation.

It is impossible to discuss intestinal indigestion apart from gastric indigestion. The former is a direct complement to the latter. Hence it will not be amiss to discuss the general nature of the digestive ferments or enzymes.

The origins of the several digestive ferments are from the cell-protoplasm of the gland cells from which the respective secretions are derived. The peculiar action each performs in digestive proteolysis is due to the inherent character of the cell protoplasm from which each is derived.

Ptyalin of the saliva is the first enzyme which the food encounters in the alimentary canal. Ptyalin converts amyloids into maltose. The next step in digestion is made by the pepsin of the gastric juice, which ferment is rendered active by the contact agent, hydrochloric acid. Pepsin transforms proteid foodstuffs through several processes, the final products being peptones. These peptones are not, as no doubt they are supposed by some, ready for direct absorption into the circulation. Peptones when injected directly into the blood-current

* Read before the Central Kentucky Medical Association at Danville, January 18, 1897.

behave as foreign bodies and produce a narcotic effect, not unlike that resulting from the injection of bacterial toxines. In fact it is claimed by many good authorities that many of the chemical poisons produced by bacteria are proteose-like bodies, chemically similar to the proteoses or peptones of pepsin proteolysis. The peptones then resulting from pepsin proteolysis, since they act as toxines or foreign bodies when taken directly into the circulation, must therefore undergo some further transformation during the process of absorption by which their toxicity is destroyed and their nutritive elements rendered available for the needs of the body. In the discussion of pancreatic digestion this subject will be referred to again.

During gastric digestion, if hydrochloric acid is not present in sufficient quantity—free or combined—to insure the best function of pepsin proteolysis, the growth and development of pathological bacteria occur; acetic and lactic fermentation ensue, and these processes, often repeated and adequately prolonged, cause gastric congestion, inflammation, and indigestion. The way is now paved for disturbances of intestinal digestion, the immediate subject for our discussion.

Since the gastric peptones are not ready for direct absorption as such, gastric digestion is to be regarded rather as a preliminary step in proteolysis, preparatory to the more radical changes characteristic of pancreatic digestion, in which the important factor is the trypsin ferment. Aside from its functions as a reservoir for the food, and its preliminary work above described, indeed, the services of the stomach might in a greater or smaller degree be dispensed with. When the chyme or pepsin-peptones pass into the duodenum the reaction is acid, but by the time they reach the middle of the small intestines the reaction becomes alkaline, rendered so by the bile, the pancreatic juice, and the intestinal secretions. Trypsin, the active ferment of the pancreatic juice, unlike pepsin, does not require the presence of a contact agent as hydrochloric acid to insure its action. Chemical experiments with pancreatic extracts show that trypsin acts better in a neutral or alkaline medium. But the testimony afforded by some recent experiments with pure pancreatic juice, if we may rely on their accuracy, seems to bear evidence that the presence of a small per cent of hydrochloric acid not only does not retard but rather facilitates the action of trypsin, and the fact that the intestinal contents do not lose their acid reaction entirely until they reach the middle of the small intestines may be advanced as corroborative testimony. However, it is a well-

demonstrated fact that the gastric digestion is essentially an acid digestion, and intestinal digestion an alkaline digestion. A word is in order here concerning the influence of bile on the proteolytic action of the pancreatic juice. Bile added to neutral or slightly acid proteids increases the action of trypsin. Further, the bile emulsifies fats, acts as an antiseptic, and stimulates peristaltic movement. It is strongly alkaline in reaction. The carbonate of sodium in the intestinal secretions completes the alkalinity of the intestinal contents, and this reaction obtains until the large bowel is reached, when the reaction again becomes acid through the products of proteid decomposition.

The processes of digestion begun in the stomach then are carried forward by the pancreatic juice, which is the most powerful of the digestive secretions. By its ferment, trypsin, it converts albuminoids into peptones, but more quickly than pepsin does. Its diastaltic ferment acts more quickly and powerfully in converting amyloids into glucose than does ptyalin of the saliva. Its third ferment readily emulsifies fats.

The foodstuffs having been acted upon by the ferments of the several digestive juices, the proteids are reduced to peptones, and the carbohydrates to maltose. Absorption occurs principally in the small intestines. Now since, as above stated, peptones and maltose can not be absorbed as such into the circulation without deleterious effects, the conclusion is inevitable that they must undergo some further transformation during the process of absorption which adapts them for the direct nutritional needs of the body. There are two theories as to the nature of this transformation. One is that the epithelial cells of the intestinal mucosa possess a ferment which is capable of further transforming peptones into simpler products, as serum, albumin, and globulin. And it is also claimed that these cells possess another ferment which further reduces maltose into glycogen, and that this characteristic may also be shared by the liver cells. The second theory supposes that the leucocytes of the adenoid tissue surrounding the intestines have the functional activity of absorbing and transforming peptones into cell protoplasm, which thus gains entrance into the circulation through the mesenteric glands and thoracic duct.

Excessive ingestion of both proper and improper foods forms the chief cause of indigestion—primarily gastric, secondarily intestinal. Whenever the gastric and pancreatic juices fail to digest a part or all of the food ingested, that which escapes is attacked by bacteria and

undergoes fermentative and putrefactive changes. The products of this bacterial action on the proteid substances which escape digestion are primarily indol, skatol, carbonic acid, etc., finally carbon dioxide, ammonia, nitrites, and sulphuretted hydrogen, all of which are abnormal products and by contact irritate the intestinal mucosa. Their partial absorption also gives rise primarily to a subjective train of symptoms usually designated by the term "biliousness," the vagueness of whose significance is a reproach to our intelligence. The contact and absorption of these products sufficiently prolonged produce more grave pathological conditions.

When carbohydrates escape digestion bacteria attacks these, and such abnormal products as alcohol, acetic acid, carbonic acid, gas, etc., are formed, which added to the abnormal products formed by the action of bacteria on the undigested proteid substances, and enumerated above, cause sufficient irritation to the intestinal mucosa to keep it constantly oversupplied or gorged with blood, which eventually results in thickening of the intestinal mucosa, stasis of the lymphatics, paralysis of the villi, infiltration of the submucous connective tissue, and degeneration of the intestinal muscles. The nerves supplying the intestines become paretic, and peristaltic movement is inhibited. Constipation ensues, bacterial toxins are produced and absorbed, poisoning all the tissues. Finally the inflammation extends to the large bowel, the colon becomes thickened, and peristaltic movement ceases at the cecal end. Its valves become relaxed and thickened, the valvular opening to the appendix becomes permanently relaxed, subjecting it to the constant danger of the entrance of foreign bodies, hence the frequency of appendicitis. At this stage of the disease diarrhea alternates with constipation, tympanites is constantly present, and abnormal fermentation processes have full sway.

At this point let me sketch for you a clinical picture. We note that indigestion breeds bacterial fermentations, from which are evolved toxins whose primary effects, since they lie in contact and constantly bathe the intestinal walls, are the series of pathological conditions just above enumerated. We have also noted that absorption occurs principally in the small intestines, but the above said pathological changes in their walls pervert their selective power in choosing proper elements for absorption as well as impair their power in further transforming the peptones and maltose during the process of absorption, consequently these are absorbed as such along with the bacterial

toxines which they resemble in physiological action. Through the vitiated blood stream all the organs of the body are poorly nourished, and thereby rendered fit soils for the inroads of diseases. In my mind pulmonary consumption and Bright's disease are but the expressions of ill-nutrition. The nervous system probably is the greatest sufferer. The diversities of the nervous diseases labeled "neurasthenia" may all trace their origin to indigestion. Such marked pathological conditions as sclerosis of the brain and chord, ataxia, and tabes dorsalis may owe their origin to errors of digestion and consequent auto-infection. Indeed the clinical picture of intestinal indigestion, beginning with the beginning, when it expresses itself under the vague term "biliousness," and tracing it to the end presents many complex features. So far-reaching are the evil effects of wrong digestion and malassimilation that in the outlines of this picture the images of "the thousand ills the flesh is heir to" may be traced, furnishing a specter that makes the memories of the visions in Dante's *Inferno* come to us as pleasant dreams. Then, pity 'tis 'tis true that we most all "dig our graves with our teeth," and seldom is there a day but adds a nail to our coffin.

With this clinical picture of intestinal indigestion plainly before us the indications for treatment or rather management are obvious. The details of treatment would require a paper alone, and the scope of this paper will permit only a synopsis. The first thing indicated is to provide the proper quality of food, regulate the quantity, and in this respect every case is a law unto itself. If any constipation be present at this early stage, broken doses of calomel, ipecac, and soda are in order to arouse the secretion and to establish elimination. The next step is to correct any errors of gastric digestion. If there is a lack of hydrochloric acid, the same is indicated immediately before meals, and as much or more for its antiseptic effects than for its proteolytic action. If there is a condition of hyperacidity, carbonate of sodium should be administered two hours after meals. If, after having corrected the reactions of the chyme preparatory to its further transformation by the intestinal juices, the digestive disturbances continue, the next step is not to commit the sin, which I consider the most common error in therapeutics to-day, of applying artificial digestants. Our object should be rather to tone and stimulate the digestive organs to the performance of their natural functions. Pepsines and their ilk should be thrown to the dogs. Theoretically, protonuclein to stimulate digestive leucocytosis is indicated, did we listen to the claim of its originators and

vendors; practically, I prefer to supply the nuclein through beef, milk, and eggs.

A favorite prescription with me is one containing strychnia, hydrastis, ox-gall, gentian, ipecac, and aloes. I use the nit. strych. It exercises a better effect over the secretions than does the sulph., and has the same toning power over muscular tissue. Hydrastis sulph. has a similar physiological action as the strych., besides it acts locally to heal the intestinal mucosa. Ox-gall is antiseptic and laxative, and being alkaline in reaction favors pancreatic proteolysis. Gentian acts better as a tonic, ipecac stimulates secretion, and aloes relieves the colon.

Aside from this, salol or thymol should be employed for their decided antiseptic effects when there is marked bacterial fermentation and infection in progress. Persistent tympanites is a reliable index to this condition. Daily salt sponges followed by general massage, together with an abundance of outdoor exercise, are very important adjuvants.

However, when intestinal indigestion has reached the second or third stage any treatment will fail that does not include daily lavage of the stomach and colon. Here truly cleanliness is next to godliness. It is imperative that both ends of the alimentary tract be kept clean, and especially the latter end.

DISCUSSION.

Dr. H. Brown said the paper had his heartiest commendation, because it voiced truths with which he was personally familiar; that his own "peristaltic woes" were diagnosed by his friends, as well as himself, as intestinal indigestion, and he knew whereof he spoke when he said that "a specific" had not yet been discovered for its cure. That he knew the conditions of healthy digestion, that the food should be masticated, mixed with saliva, and swallowed into the stomach; that in the stomach it should be reduced into a pulp called chyme, which is acid; that the chyme should go through the pylorus into the duodenum and there be mixed with the bile, pancreatic secretion, and intestinal mucus, and because of this intermixing the mass is separated into two parts—the chyle, the nutritive portion which remains, and the excrementitious portion which is thrown off. Intestinal was a little more than gastric dyspepsia, from which the paper had differentiated it. His attacks had always come on with pain over the duodenum, accompanied with nausea followed by vomiting and some borborygmi

and inability to digest the blandest food. Calomel or other eliminants he employed; after that opium to quiet pain, with a diet free from starches, and massage and lavage, constitute the treatment. This was about the plan, also, that he gave to his *clientèle*, with more or less success.

Dr. George Caran said the theme for discussion was a wide-reaching one, and the essayist had defined a disease which he had difficulty in taking hold of. That pathologically speaking all forms of dyspepsia, and dyspepsia is but a symptom, depended upon the presence of toxins. We know the occurrence of intestinal catarrh always presupposes one of two etiological conditions: either the irritations are of abnormal character, the mucous membrane being normal, or the intestinal mucous membrane has lost its normal character, so that normal irritations are sufficient to excite morbidity. Generally the duodenal trouble arises from gastric inflammation induced by indiscretion in eating. Then we see disturbances of the liver, with pain in the right hypochondrium, vomiting of bile, sometimes jaundice. Icterus is not an invariable accompaniment, but purgation is nearly always observed—one of nature's effort to cure. Physicians nowadays begin the treatment of diarrhea and nearly every other disease with a cathartic; and the practice is a good one, especially when the disorder has been excited by indigestible, irritating food, by portal congestion, and so on. In the treatment of any dyspepsia we should remember the chemical and mechanical irritations which the chyme and the more solid feces normally excite in the healthy mucous membrane, and that they may act abnormally when the mucous membrane is inflamed; therefore we should avoid a diet which gives solidity to the feces.

Dr. J. M. Meyer remarked that there were three points about the digestive tract which he would like to impress upon the association. The first was within the mouth; that with good teeth and a diet well prepared and each bite masticated a long time, even thirty-two times, as is the custom of the great old man, Gladstone, there need not be any dyspepsia in the land. But this hygienic measure was not followed, therefore dyspeptics, both gastric and intestinal, were as thick with us as leaves in Vallombrosa, each case demanding a cure at the hands of the doctor expecting him to perform a miracle. The gastric juice is formed in the mucous membrane of the stomach, acid in its reaction (hydrochloric), and a constituent of this juice is a ferment called pepsin. This substance with the hydrochloric acid dissolves albuminous mat-

ters. These must work together, as taken singly they can not transform albuminous substances, which process is observed in good digestion. A variety of food is necessary to good digestion; but with this, unless a quantity of good water is daily ingested, all else is as a tinkling cymbal. To begin the day's business, a pint of hot water before breakfast, which lavages the stomach, is the grandest thing in the world, and the greatest one to excite the gastric juice. I am somewhat of a Nihilist in the way of medicines when I come to treat dyspepsia. Each sufferer is a law unto himself in this particular; physic to one is poison to another, and this is so with respect to diet. With a well-regulated regimen, bland yet nutritious, with attention to the skin and the other functions of the body, we may alleviate, if not cure, a majority of those who consult us.

Dr. T. O. Meredith commended the paper very highly. He said the first thing to do was to make a diagnosis, and in this he would bring to bear the stomach pump, but be careful and not let the patient swallow the tube. In the treatment he began with calomel as an eliminant. The *prima viæ* having been well cleared, and being fully satisfied that the case was one of intestinal dyspepsia, he gave sulphate of strychnia and capsicum before food, with peptic essence and listerine after meals. By correction of the diet, giving an easily assimilated food; avoiding constipation by daily enemata of hot water, with lavage to the stomach; massage, plenty of fresh air and outdoor exercise, and bolstering the patient with kind assurances that he would get well, he had never much difficulty in giving relief to his clients.

Dr. Isaiah Wesley said that he had had a number of cases of intestinal indigestion, and that his practice was first to remove the cause, if it could be done; if not, to modify the diseased action by medical art, using those therapeutic measures with which the profession is familiar. If the hepatic function is involved he gives calomel combined with soda. If an anemic condition is present, he uses hydrochloric acid with a preparation of iron. A stop must be put to fermentation within the stomach and duodenum. For this purpose salol, boracic acid, or creosote may be employed. After the removal of all irritation, an easily digested diet, avoiding hydro-carbons, as a person with this malady should not be permitted to eat fats; a soft boiled egg; fish, the most digestible of all meats, and plenty of good milk, preferably that fresh from the udder; with just a little well browned bread, is what he recommends. As to medicines, strychnia is a good stomachic, combined with wine and water, or with some Kentucky stomachs, the

"biled juice" of the cereal, corn, taken before or after a meal causes an increased secretion of gastric juice, and the saliva which is swallowed arouses the gastric mucous membrane to energetic action.

Dr. J. G. Carpenter said Davis' paper was an extraordinary one; that for two years he was in the throes of intestinal indigestion—duodenal dyspepsia—and was prepared to say something concerning its treatment. He then gave the steps of normal digestion. He believes too many "slops" are partaken of, insalivation is not performed, and dyspepsia is the result. In fact no kind of fluid should be taken while masticating amylaceous food. In intestinal digestion micro-organisms are always present; in normal gastric digestion they are not. Our foods can be aseptized; for our comfort this should be done. Good teeth prepare for digestion; the dental surgeon should be consulted by those not in possession of these essentials. Many dyspeptics are able to be in the open air; if so, nothing compares to horse exercise. By this every muscle is brought into action; our thoughts are better, the liver is made more active, so is peristalsis, the nervous system is invigorated, the heart's action made quicker, sleep is better, and we are revived generally. The wheel may be good, or it may prove a boomerang. For bed-ridden patients, anemic, with perverted functions, we must deal gently. Gentle massage by a trained masseur is a divine relief. The stomach pump may prove valuable. I have seen such cases; then again others have rebelled after a single use of it. High enemata are valuable. Hot water used in early morning and at the bed hour is a sovereign remedy for every one. Irrigate the stomach and the colon. The ends of the nerves are hyperesthetic, and need calming. Advise the hot bath; many do not have one in a single year. What may they not have? After bathing, friction with a rough towel and inunction with oil at bedtime gives balmy sleep and morning refreshment. The medicines to be given are few: digitalis, strychnia, pancreatine. If there be any specifics, they are soda salts, to increase intestinal juices; salol, as an antiseptic; bismuth and calomel for their mechanical and derivative effects. But the treatment of each case must be judged by the practical knowledge of dietetics as well as therapeutics of the medical attendant.

Dr. Fayette Dunlap thought the paper a good practical one, and that it met his approval. Scientific advances made within recent years enable us to examine the contents of the stomach, also the effect of pepsin is accurately estimated. The condition of our knowledge of

gastric digestion is satisfactory, and we thoroughly understand the physiology and chemistry of the gastric fluids. Gastric is bound to be preliminary to duodenal digestion. Also we know more accurately the causes of dyspepsia. Hasty eating is a prime factor, therefore we should dine more slowly; we might also limit the amount of starchy foods. To hurry the carbohydrates into the stomach without permitting the ptyalin found in the mouth to act upon them is, to say the least, very bad practice. The symptoms of intestinal indigestion have been dwelt upon by the essayist, as well as by those who have preceded me in this discussion, and my remarks on the treatment will be brief. Given a case, the first indication would be to relieve, to clear the intestine, and calomel is the remedy, but a continued use of it would be a risky expedient. Nor may we give it in large doses, but in small frequently repeated ones. The use of stomach tube is limited; it disgusts and makes patients rebellious. Difficulty is encountered in continued use of washing the lower bowels. Constipation is rather the rule in these cases; aperients are necessary then. Each case would present its own methods of treatment.

Dr. J. C. Bogle said he had but a word for the treatment. Rigid restriction of diet, that is confinement to only one, two, or three articles, will cause dyspepsia. He believed in a variety of foods as essential to good digestion. He had given strychnia until its physiological effect was exhibited on the nervous system, and this, without another remedy, effectually cured the cases. Liquid pepsines, he said, were not good; and milk, as an article of food for dyspeptics, he gave his unqualified condemnation.

The discussion was closed by the essayist in a few remarks, making, for Dr. Hawkins Brown, the line of distinction between acute and subacute intestinal (duodenal) dyspepsia.

LAWRENCEBURG, KY.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Orthopedic Section, March 19, 1897.

A Case of Wry-Neck. Dr. T. H. Meyers presented a girl, fifteen years of age, who, in last August, after having been heated by hard playing the day before, found her head fixed in a certain position, and that attempts to change the position caused pain. Three or four days subsequently she began to have pain at night in the left side of the neck posteriorly. This has been the condition till the present time. Her general health is good. There is tenderness in the left suboccipital region. At times she supports her head with her hands to relieve pain. There is no headache and no pain on jolting or jarring. There is no rigidity of the superficial muscles on either side of the neck. Flexion and extension of the head are normal. The chin is rotated to the right ten degrees and the head is inclined a little toward the left shoulder. Attempts to correct this position cause reflex spasm. The first and sixth cervical spinous processes are prominent. No prominence can be felt anteriorly on examining the throat. There is no lateral curvature. She had never had rheumatism or any form of joint disease. Leaving out of the question the inception of the disease, almost all the features of the case were those of cervical caries, and Dr. Meyers intended to treat the patient for this trouble, but he wished to be able to make a positive diagnosis between this condition and rheumatism of the neck.

Dr. S. Ketch said that it was not always possible to entirely eliminate suspicions of rheumatism in cases which it is necessary to treat as vertebral caries. In the present case he considered the reflex muscular spasm, the limitation of motion, and the prominence of the vertebræ as sufficient to determine the diagnosis. He believed the trouble was in the cervical vertebræ not lower than the third, but did not think it was necessarily tubercular.

Dr. R. Whitman thought the trouble was not tubercular. Although the atlas was prominent it was not enough so to have any significance, there was no infiltration, and the motion is restricted in some directions

but not in all. Occipito-atloid disease impaired the nodding motion, and atlo-axoid disease impaired rotation. He thought it probable that the symptoms had followed strain or injury, and that the continuous attitude was causing continuous pain. He would rectify the position and approve the treatment which had been proposed.

Dr. A. B. Judson said that it had sometimes been his experience to refer patients for general treatment, on the ground that the trouble was not local bone disease, and to have clear symptoms of osteitis appear at a subsequent period. The obscurity of the symptoms in osteitis of the cervical vertebræ occasionally make early diagnosis, as in the present case, far from easy. He thought that mechanical treatment was required in this case, and that it was probably a case of cervical caries.

Dr. V. P. Gibney would rather suggest that this might be a case of irritable spine. He would employ active counter-irritation with fly blisters or the actual cautery, and treat the patient as a neurotic. There is often an irregularity of the spinal column even when no pathological condition exists.

A Case of Hip Disease. Dr. Meyers presented a boy, twelve years of age. When he was seven years old he developed fever and chills, and a large abscess appeared at the right hip with edema of the limb. An incision showed that five inches of the shaft of the femur were denuded of periosteum. Exsection was not performed, and the long hip-splint had been worn till the present time. The sinuses continued to discharge, and on December 29, 1896, they were explored and found to proceed from cloacæ on opposite sides of the femur below the trochanter. These were enlarged and sequestra, from half an inch to an inch and a half in length, were removed. On February 3, 1897, the sinuses had closed. The affected limb was three quarters of an inch longer than the other. There was no pain, and he walked well without the splint. There was very wide motion in flexion and extension. The case showed that conservatism in regard to excising bare bone was necessary and advisable in these cases of osteomyelitis. The periosteum in this case was elevated far beyond the limits of the central necrosis, and an exsection could not have secured a result as good as this.

Dr. Judson said that in its duration and results the case resembled ordinary hip disease, but a very exceptional feature was the bony lengthening, which was the more remarkable because the trochanter was far above the line.

Dr. L. W. Hubbard recalled but one case of ordinary hip disease in which careful measurements showed absolutely no bony shortening.

Dr. Whitman recalled a case in which the patient had suffered many years from necrosis of the femur with an inch and a half of lengthening. The bone was broken accidentally, and its non-union was followed by amputation.

Aneurism Simulating Spinal Disease. Dr. Ketch related a case in which the patient, a woman thirty-seven years of age, had been advised to seek mechanical treatment for spinal disease. The principal symptoms were radiating pain in the back, loss of flesh, aphonia, and occasional dyspnea. Examination revealed a pulsating tumor at the lower part of the carotid triangle and a decided aneurismal bruit.

A Specimen of Acetabular Disease. Dr. Gibney related the case of a boy five years of age, who had had symptoms of left hip disease for four months. There were marked flexion and adduction, limited motion, and an abscess in the gluteal region. After being on an inclined plane with a weight and pulley for a month, there was no improvement, and an incision was made above the trochanter and the capsule was divided. The femoral head appeared to be normal and was not removed. In the acetabulum were broken-down bone and erosion, and considerable pus was present. The acetabulum was curetted, the sinuses were drained, and the wound was irrigated and packed with iodoform gauze but not sutured. Pneumonia developed two days after the operation, and the patient died one month later. Both lungs were found in a state of mottled red and gray hepatization with areas of atelectasis. On section no foci were found in the head or neck of the femur. The articular surface of the head had been eroded since the operation. The specimen represented an exaggerated instance of acetabular disease.

THE PARASITE OF WHOOPING COUGH.—M. Kurloff (Lancet) remarks that Henke and Deichler have for the last ten years maintained that the cause of whooping cough is a very active organism provided with cilia. He challenges this statement, and believes that the micro-organism of whooping cough is not to be sought for among bacteria, but among the protozoa. He has never failed to find active amebæ with finely granulated protoplasm and with spherical spores characterized by concentric lamination. He believes he has been able to follow the development of the spores into amebæ. The facts he describes may all be observed in the fresh sputa of the patients, even without the employment of an Abbe's condenser.—*Maryland Medical Journal.*

Reviews and Bibliography.

The International Medical Annual and Practitioners' Index. A Work of Reference for Medical Practitioners. Contributors: Herbert W. Allingham, F. R. C. S.; H. Fielden Briggs, D. D. S., L. D. S.; Prof. Augustus Caille, M. D.; James Cantlie, M. A., F. R. C. S.; Prof. H. D. Chapin, M. A., M. D.; J. W. England, L. D. S., R. C. S.; E. Hurry Fenwick, F. R. C. S.; W. Soltan Fenwick, M. D., F. R. C. P.; Prof. William S. Gottheil, M. D.; J. Dundas Grant, M. A., M. D.; Alex. Haig, M. A., M. D.; F. de Haviland Hall, M. D., F. R. C. P.; Prof. G. M. Hammond, A. M., M. D.; G. Armaner Hanson, M. D.; David Hardie, M. D.; Frank W. Jackson, M. D.; Robert Jones, F. R. C. S.; Otto G. T. Kiliarie, M. D.; W. Arbuthnot Lane, F. R. C. S.; Priestly Leech, M. D., F. R. C. S.; Thomas More-Madden, M. D.; George Lane Millins, M. A., M. D.; William Murrell, M. D., F. R. C. P.; Prof. Theophilus Parvin, M. D.; James Priestley, B. A., M. D., D. Ph.; John Ridlon, M. A., M. D.; Prof. A. W. Mayo Robson, F. R. C. S.; Prof. Robert Saundby, M. D., F. R. C. P.; Prof. George E. De Schweinitz, M. D.; Hy. Sewell, M. R. C. S., L. D. S.; James Shaw, M. D.; R. Shingleton Smith, M. D., B. Sc.; G. E. Shuttleworth, B. A., M. D.; Prof. E. Sonnenburg, M. D.; J. W. Springthorpe, M. A., M. D.; Prof. Unna, M. D.; Clarence A. Veasey, A. M., M. D.; Norman Walker, M. D., F. R. C. P. (Ed.); P. Watson Williams, M. D., M. R. C. S.; Irving S. Haynes, Ph. B., M. D. 724 pp. Price, \$2.75. New York and Chicago. 1897—fifteenth year.

One who had gone to sleep twenty years ago, puzzled and discouraged with the confusion and intricacies of the then therapeutics, and should awake some fine morning under the present therapeutic regime, he would feel far more of surprise than Rip Van Winkle after his long nap in Sleepy Hollow, and by the time he followed "good results," "wonderful effects," and "astonishing success" for a few months of the journals and a few rounds of the annuals, with all their endless contradictions of experience, he would ask to be permitted to "not count that," and take another of a double score of years, in the fond hope that "progress" had reached some sort of a goal. This is a thought likely to come of reading not only this work but any current medical literature.

The old, the standard *materia medica* has been all but set aside, and it is now all serum-therapy and animal extracts. No one can object to any reasonable experiments, but let us have assurance that these experiments add to our experiences—to things found out.

Outside of therapeutic observations, however, there are a large number of rich contributions to various departments of medicine, which must needs be with this large number of eminent contributors culling all that is best from the world's literature. One of the contributors, the fourth on the list, has a name hopefully suggestive, and we would be happy to join our voice with the thousands who would wish that his tribe might indefinitely multiply.

Anomalies and Curiosities of Medicine. Being an Encyclopedic Collection of Rare and Extraordinary Cases, and of the Most Striking Instances of Abnormality in All Branches of Medicine and Surgery, derived from an Exhaustive Research of Medical Literature from its Origin to the Present Day, Abstracted, Classified, Annotated, and Indexed. By GEORGE M. GOULD, A. M., M. D., and WALTER L. PYLE, A. M., M. D. Imperial octavo. With two hundred and ninety-five illustrations in the text and twelve halftone and colored plates. 968 pp. Prices: Cloth, \$6.00 net; half morocco, \$7.00 net. Sold only by subscription. Philadelphia: W. B. Saunders, 925 Walnut Street. 1897.

There is scarcely to be found an intelligent person, lay or professional, to whom the various anomalies and other curiosities in structure and function are not matters of interest. If one but takes a look into this book he will not need the help of a reviewer. He will read the book before he will turn to the review. One ill feature of it is that it must spoil the reports of average experiences, since so few of us have happened to meet with cases not eclipsed here in the record.

It is made up of morsels of the most interesting observations and experiences of all authentic history and even *critique* of myths. Not only does the book gratify curiosity, but furnishes a vast array of facts serviceable in medical jurisprudence, obstetrics, surgery, and medicine. Of course particular mention of so great a multitude of facts is out of the question; but one will be referred to as having often in the reviewer's experience been the theme of interesting discussion, viz., the existence of dermoid cysts.

The author says that for many years they have been a mystery to physiologists, and their origin now is little more than hypothetic. The reviewer has long contended that while it may be true that some of these are included fetuses—twins of the host—as commonly contended, the great mass of them have their origin in a species of parthenogenesis, or rather gemmation. When we read here that the highest number of children ever produced at one birth is thirteen, while McClaren reports a case in which there were one hundred and thirty-two, and Jamieson another in which two hundred and fifty dermoid cysts were found, it appears quite impossible that so many fetuses of arrested growth would be imprisoned in the body of the one whose development proceeded. The next wonder is how Dr. Gould managed to write so many voluminous works. D. T. S.

Reference-Book of Practical Therapeutics. By Various Authors. Edited by FRANK P. FOSTER, M. D., Editor of the New York Medical Journal and of Foster's Encyclopedic Medical Dictionary. In two volumes. Volume I, 652 pp. New York: D. Appleton & Company. 1896.

The editor announces, as the leading idea in the preparation of this work, the making it eminently serviceable to the practicing physician. Every characteristic of drugs except such as relate to their therapeutic uses is very briefly treated, and any thing like profusion of reference has been avoided.

The author also assures us that the therapeutic nihilism that a few years ago was justly deplored by Prof. Bartholow, who by the way seems to have faith as strong as a grain of mustard seed, or a fresh mustard plaster for that matter, has been succeeded by a wave of overactivity for which it is not difficult to account. He does not account for it, however, and since he leaves the reader to account for it, we will suggest that it is due to the discovery of the great efficacy of printer's ink. Or does the editor really mean this when he later says: "There is another class that may be called catchpenny products, put upon the market by men of business enterprise without an excess of scrupulousness, and wafted into a certain vogue, temporary and inglorious, by men who, while professing to write for the advancement of medicine, are really in the proprietor's pay, directly or indirectly." Throughout the work the effort of the editor and his collaborators appears to be to give only what stands approved as far as the verdict of the best men in the profession goes. It is all meat. There is no waste to it.

In his preface Dr. Foster expresses his sorrow at the untimely death of two of his collaborators, Dr. Edward R. Palmer, of Louisville, and Dr. Benjamin F. Westbrook, of Brooklyn, both of whom had done important work on the book. In this sorrow many a reader joins him. A full and specific index as well as an index of remedies completes the volume. D. T. S.

Hypnotism and its Application to Practical Medicine. By OTTO GEORGE WETTERSTRAND, M. D., Member of the Society of Swedish Physicians at Stockholm, etc. Authorized translation (from the German edition) by HENRIK G. PETERSON, M. D., Member of the Société d'Hypnologie et de Psychologie, Paris, etc. Together with Medical Letters on Hypno-suggestion, etc. By HENRIK G. PETERSON, M. D. 166 pp. New York: G. P. Putnam's Sons. 1897.

The prominence of this work as an exponent of hypno-therapeutics is well evidenced by the fact that translations have appeared in Russian, German, and English. Its positive value as a contribution to medical science or art is another story. In many very judicious minds there is a firm conviction that a large part of the results obtained in the practice of medicine is due to psychic influences. Not only are such influences distinctly adjuvant to drugs, but the question often rises in logical minds, "How would the sick get along at all with the drugging they often get if it were not for the sustaining power of confidence and hope?" The question we are here concerned with is, How much is added to this helpful confidence by the formulæ of hypnotism?

In this work the author claims much. Not only for him does hypno-suggestion cure headaches, neuralgias, and insomnia, but also organic paralysis, consumption, Bright's disease, and organic heart troubles. It is only just to the authors to say that they complain of the narrowness, bias, and prejudice of the world in not more readily accepting the results of practice along this line. For our own part we believe that all good obtained

from formal and avowed hypno-suggestion is more than offset by the relation of master and slave promoted by the practice, and the temptation to imposture, fraud, and other crimes it offers to a bad element of the community.

If a long probation and high indorsement of moral character are required in the vestibule of the temple of medicine, these both ought to be doubled for any one allowed to enter on the practice of hypnotic suggestion. The very basis upon which society is formed, and its existence justified, is that it protects and strengthens the weak, and hypno-suggestion does not promise enough of good to justify a reversal of the principle. D. T. S.

Lectures on Appendicitis and Notes on Other Subjects. By ROBERT T. MORRIS, A. M., M. D., Fellow of the New York Academy of Medicine, etc. Second edition, revised and enlarged. With illustrations by HENRY McDONALD, M. D. 173 pp. New York and London: G. P. Putnam's Sons.

Dr. Morris first appeared before the general medical public as the author of "How We Treat Wounds To-day," which though thought by many to be extreme, nevertheless did much to attract attention to the subject and to break down prejudice. His work on appendicitis added like interest to that subject which will not be abated by this second edition.

It is plain to see, from a number of other subjects injected into the work, that the author is decidedly enamored of extreme surgery and radical to the danger line—one of those extremists who have cost so much to humanity by inciting attempts at imitation.

One of his ventures has been the attempt to graft parts of the ovary of one woman into the womb of another in order to enable her in this way to become pregnant. Another dangerous step. The next fellow will be engrafting both testicle and ovary into the womb, and thus may keep the poor woman continuously pregnant. D. T. S.

The Practice of Medicine. A Text-Book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By JAMES TYSON, M. D., Professor of Clinical Medicine in the University of Pennsylvania, and Physician to the Hospital of the University, etc. Illustrated. 1183 pp. Price, \$5.50.

In the production of a text-book of the character of this, little can be expected that is entirely new and original, and the work must base its claims on its charm of style and the discrimination and authority of its author. The name of Prof. Tyson is already familiar as a medical author both in this country and in Europe. As an authority he has an acknowledged position. His discriminating selection of what most needs to appear in a text-book necessarily condensed approves itself at once to the reader of this volume.

It only remains to say that the style is as attractive as the right treatment of the subject-matter will well permit, while the mechanical execution

is well-nigh perfect. The book, however, adds to the perplexity of the student, for its appearance makes it increasingly difficult for him to choose among the many excellent works now before the public. D. T. S.

A Practical Treatise on Diseases of the Skin. For the Use of Students and Practitioners. Fourth and Revised Edition. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, etc., and FRANK H. MONTGOMERY, M. D., Lecturer on Dermatology and Genito-Urinary Diseases, and Chief Assistant to the Clinic for Skin and Venereal Diseases, Rush Medical College, etc. Illustrated with one hundred and ten engravings and twelve plates in colors and monochrome. 808 pp. Philadelphia and New York: Lea Brothers & Co. 1897.

So well-known through previous editions of his excellent work as a diligent, capable, and painstaking student and writer on skin diseases is Dr. Hyde, that no other guarantee is needed than the mere fact that a fourth edition has been issued to justify a warm welcome by the profession. The labor of revision, the author assures us, was restricted to a few months, but within this limited period of time to alter and, it is believed, also to improve nearly every page. New chapters have been added, or the old rewritten on a large number of subjects.

Dr. Frank H. Montgomery, who was mentioned as an assistant in former editions, is associated in this as one of the editors. Taking up this authoritative work one naturally turns to see what recognition thyroid extract has in psoriasis and ichthyosis, that has such extensive vogue in the journal literature of the day, and is surprised to find out, that like Kaposi and most other recognized authorities, he doesn't mention it. With those of us who like to see honors divided, and our own section coming to the front, there is something quite gratifying in the knowledge that in Hyde and Hardaway we have treatises on diseases of the skin that the student need not lay aside for any. D. T. S.

The Year-Book of Treatment for 1897. A Critical Review for Practitioners of Medicine and Surgery. Contributors: Francis D. Boyd, M. D.; Dudley W. Buxton, M. D.; Albert Carless, M. S., Lond.; Alfred Cooper, F. R. S.; Sydney Coupland, M. D.; George P. Field, M. R. C. S.; Archibald E. Garrod, M. D.; M. Handfield Jones, M. D.; Reginald Harrison, F. R. C. S.; G. Ernest Herman, M. B.; J. Ernest Lane, F. R. C. S.; A. P. Luff, M. D.; Patrick Manson, M. D.; Malcolm Morris, F. R. C. S. (Ed.); Edmund Owen, F. R. C. S.; Sydney Phillips, M. D.; Henry Power, F. R. C. S.; E. S. Reynolds, M. D.; William Rose, M. B.; Gustave Schorstein, M. B.; St. Clair Thomson, M. D.; Nestor Tirard, M. D.; W. J. Walsham, F. R. C. S.; W. Hale White, M. D.; E. F. Willoughby, M. D.; Dawson Williams, M. D. 480 pp. Philadelphia and New York: Lea Brothers & Co. 1897.

At a time when there are so many publications called year-books it is somewhat bold to hold to the name "The Year-Book of Treatment." But if wise discretion, thorough learning, and judicial fairness are alone to be taken into account, one can hardly say that this is an arrogant claim. It is doubtful if any other work of the kind numbers so many proud names in

medicine, and all the reports are characterized by that thoughtful conservatism that is so eminently characteristic of the Englishman and particularly of the English physician.

The fads have been pruned, pretenders left unnoticed, and the impression remains with the reader that something was known yesterday of medicine. In medical matters some Americans might justly think the continental physicians are quoted out of their just proportion when the number of medical fads coming from that direction in recent years have been exploded is considered, but in surgery America is well represented.

Particularly is this the case in rectal surgery, in which Louisville has the first honors, nearly every thing worthy of record having appeared in Mathews' Quarterly. It is pleasing to see the influence the contentions of Dr. Mathews against extirpation for cancer of the rectum are having. So hopeless as to be nearly always cruel and often wicked and dishonest, it is one of those operations that when done at all should be required to be done without fee. The Nauheim treatment of diseases of the heart are referred to with such fullness as shows how much of mere show and make-believe there is in it, and how much of sound reason. It is clear that the normal, which is the result of millions of years of effort by nature acting through evolution, is the highest attainable standard; that is, that the heart and lungs shall each do its full share in respiration, the heart bringing the blood and the lungs the oxygen to their mutual meeting-place.

Cultivation of expansion of the lungs and development, but not overdevelopment, of the power of the heart by proper gymnastics is the good old plan that needs but to be mentioned to approve itself.

The foolish swing of the treatment of opium poisoning by permanganate of potash is brought nearly within bounds, and every thing else in fact has the conservative stamp of mature thought, while every writer shows a mastery of good old classic English.

D. T. S.

The Retrospect of Medicine and Surgery. Being a Half-Yearly Journal Containing a Retrospective View of Every Discovery and Practical Improvement in the Medical Sciences. Edited by JAMES BRAITHWAITE, M. D., Lond.; Obstetric Physician and Surgeon to the Leeds General Infirmary, etc. Assisted by E. F. TREVELYAN, M. D., Lond., B. Sc., M. R. C. P. Volume 114. January, 1897. Uniform American Edition. 435 pp. New York: G. P. Putnam's Sons. 1897.

Nearly two generations have first and last been readers of Braithwaite's Retrospect. For more than half the time it was the only one of its class among English-speaking people. Though now in its fifty-seventh year it is constantly gaining vigor, and doubtless the one hundred and fourteenth number will be adjudged the best of the series. It is well digested, sound, and conservative. Though outdone in scope by some of its newer and richer rivals, as a safe adviser it compares well with any other before the public.

D. T. S.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Nurses and Matrimony; Kissing the Book; A Noted Tavern; The Founder of the Geneva Red Cross Society; The Rusting of Instruments; Hospital Reform; Medical Men's Wills; Medical Advertising; Professor von Esmarch.

The chairman of the Council of the Royal National Pension Fund for Nurses, in presenting the annual report, said that no fewer than sixty-two nurses belonging to the Association married during 1896, against twenty-nine in 1895. It also appeared that over eight hundred joined during the past year, paying premiums of £10,000 in excess of the previous twelve months. The total invested funds now amount to £311,000. The whole statement was of the most satisfactory character.

The Consulting Chemist to the Bradford Corporation has just completed the analysis of a testament used in the Ripon court-house sixty years, and said to have been kissed by forty thousand people. The analysis was with a view of ascertaining the danger or otherwise of the practice of kissing the book. There were separated seven species of micro-organisms which cover the three divisions of the fungi order. The only germ found of a dubious character was the pus cocci. It was pointed out to the corporation that if salivary germs could be left in that manner other microbes of a more dangerous character could be left, which was a strong argument against kissing the book.

A "Pickwick" tavern has been sold; it was known as the old George IV, and stands in Portugal Street, Clare Market. It is a comfortable old tavern, supported on a row of wooden pillars, the upper stories overhanging, and is a very good specimen of the public house of the last century. It was the custom for many successive landlords of this old house to keep a sort of unauthorized "Medical Register," in which all the students at King's College Hospital who had successfully gone through the terrors of the examination-room of the adjacent Royal College of Surgeons were expected to sign their names. These books contained the names of many men who afterward became famous in medicine and surgery. Close by this tavern is an old-fashioned building, now used as a paper warehouse, which some say is "The Old Curiosity Shop" immortalized by Dickens.

It is stated that Mr. J. Henri Dunant has fallen upon evil days. He not only founded the Red Cross organization, but induced the Convention of Geneva to be summoned. Although worthy to rank with John Howard and Florence Nightingale, his name is now almost forgotten.

After an experimental investigation as to the rusting of instruments, it has been found that the process is due to carbonic acid contained in water, and that it is not absolutely prevented by the addition of carbonate of soda, as recommended by some. It was, however, found that rusting can be greatly lessened by first boiling the water before placing instruments in it, since thus the greater part of the carbonic acid is expelled. The most efficient means is to add to the boiled water 0.25 per cent of sodium hydrate, pure, containing no sulphur. During an operation the instrument should lie in the solution thus prepared. Sharp knives placed in this preparation do not lose their edge in the faintest degree.

Dr. Isambard Owen, at a recent meeting of the Hospital Reform Association, said that, allowing for the possibility of many patients being reckoned twice, no fewer than 500,000 persons received during the past year out-door relief at the hands of the great London hospitals. To these also must be added the large number of cases that had been treated at the smaller hospitals, which would bring the total up to figures quite appalling. There was, Dr. Owen went on to say, a perfectly legitimate field for medical charity, but it was not the duty of the hospital to provide medical treatment for those who were in a position to pay the doctor's bill out of their own pockets. In fact, the way in which relief was at present administered by many hospitals was a grave injustice to the members of the medical profession who practiced among the poorer classes, and must be held responsible to a great extent for the general lowering of medical remuneration, which was becoming an unfortunate feature of the condition of the profession. In some of the country districts where the qualified practitioner set up in business, he had not only to compete with the quack and the chemist, but also found that the attractions held out by local institutions, which were intended only for the benefit of those who were unable to pay doctors' fees, deprived him of the means of establishing a connection in the neighborhood.

Among the wills of the medical profession proved during 1896, that of Dr. Patrick Fraser, £420,000, dwarfed all others into insignificance. Then came Sir John Erichsen with less than £90,000, and Sir George Humphrey with a trifle under £80,000. It is said that, like Sir William Gull's estate of £342,000, Dr. Patrick Fraser's fortune was chiefly built up by judicious investment.

The architect of the new building of University College Hospital is Mr. Alfred Delerhoure, and the renovated hospital, in accordance with his designs, is to be three times its present size, built in the form of a diagonal cross so as to obtain the maximum of light, air, and accommodation. The work will not be completed for three or four years to come, and it is not unlikely that the sum of £120,000 put aside for this purpose will ultimately be exceeded.

A short time ago the following advertisement appeared in a Portsmouth Paper: "*Free Medical Attendance and Medicine.* Having succeeded in engaging the services of an eminent and very successful professional gen-

tleman, I offer the above to all my customers. John Blank, Wholesale and Retail Provision and Potato Merchant, Lincoln Road, Feratton." In Liverpool not long ago a tradesman offered the free services of his medical staff to purchasers of a pound of tea.

Kiel University has been *en fête* congratulating the eminent surgeon, Professor von Esmarch, on his silver wedding. The celebrations on the day itself commenced as early as eight o'clock, when a reveille was played by the Naval and Infantry bands. Congratulatory telegrams were received from the Emperor and Empress of Germany. The Professor and the Princess Henriette of Schleswig-Holstein, his wife, were the recipients of the most beautiful bouquets and presents, among the latter being a lovely silver urn from the relatives of the Princess, a valuable table lamp with a silver stand. A dinner party in the evening followed by a ball concluded the day's entertainments.

An amusing tale is going the rounds, of a young doctor who, upon starting practice in a country town, hit upon the novel expedient of sending around the crier to announce that a dog had been lost, upon the restoration of which to a certain medical man \$25.00 would be paid. The dog was an imaginary one, but the attention attracted to the young practitioner was not without benefit.

LONDON, March, 1897.

Abstracts and Selections.

THE TREATMENT OF PHTHISIS.—S. Unterberger (*St. Petersburg. med. Woch.*, 1896,) is strongly in favor of organizing simple and cheap sanatoria for phthysical patients. In Russia there are two such sanatoria: Halila, in Finland, founded by Dittmann in 1883, and Lindheim, in Livonia, founded by Trew in 1895. The great expense hinders the erection of many large sanatoria, but Unterberger maintains that little houses or cottages might be erected at less expense, where consumptive patients might have pure country dust-free air, good food, and hydrotherapeutic treatment, and remain under medical supervision as at larger sanatoria. The air may be artificially scented with the aroma of pine trees if the latter are insufficient. Winternitz believes that the hydrotherapeutic processes act by increasing phagocytosis. Employers of labor, according to Unterberger, might even be induced to erect small sanatoria of this kind from purely economical considerations. Böllinger has shown that bacilli may remain latent in the bronchial glands for twenty years without losing their virulence. Unterberger, however, thinks that the rôle of the bacillus in spreading the infection of phthisis has been overestimated. Riffel mentions a curious instance in point. A consumptive family lived for thirty

years in a small house; several children and five adults died of phthisis in the house. The house was then occupied immediately by another (large) family, and although no kind of disinfection had been undertaken, and many years have elapsed, none of the second family have yet developed phthisis. As an instance of what he means by the cure of phthisis, Unterberger narrates the history of Dr. Dettweiler. This physician, aged fifty-eight, has a family history of phthisis. At seventeen (1859) he had chronic pleurisy on the right side. Hemoptysis in 1860. In 1867 there were signs of a cavity at the apex of the right lung and much hemoptysis. In 1868 he improved during treatment at Goerbersdorf, but had an attack of pleuro-pneumonia after giving lectures at Darmstadt. He then became assistant to Brehmer at Goerbersdorf. In May, 1870, he had severe typhlitis, and then, during service in the Franco-German war, had fresh hemoptysis and pulmonary inflammation. After six weeks' rest at Goerbersdorf he was able to return to the war, but on the way back from France had again the signs of a cavity at the right pulmonary apex. He remained at Goerbersdorf, improving slowly, but had an exacerbation in 1875. In this year he went over to Falkenstein, where he has had occasionally hemoptysis or fever, and in 1883 a left pleuritic exudation. In 1884 no tubercle bacilli could be found in the sputum, but after a fresh cold they were again present. Since 1885 no bacilli have been found in the sputum, although there have been occasional slight hemorrhages.—*British Medical Journal*.

SERUM-THERAPY OF CANCER.—J. Swiatecki (*Przegląd Chirurgiczny*) reports a case of cancer in which serum prepared by the method of Richet and Héricourt was used. The patient was a woman, aged forty, with a recurrent cancer of the breast. Portions of the tumor were removed and inoculated on two different occasions in a dog. Serum was afterward taken from this dog and injected in the pectoral region of the patient where the tissues were hard and infiltrated, although the wound of the second operation, which had been skin-grafted by Thiersch's method, was healing well. After four injections of 1 c.cm. of serum the skin over the mass was less tense, the arm was less swollen, and one of the enlarged supraclavicular glands looked smaller and was distinctly less hard. After two further injections of serum an abscess formed under the skin above the tumor, and an attack of erysipelas of the arm with somewhat high temperature occurred. The abscess was opened, giving issue to a large amount of pus and débris, the products of necrosis of the tumor. The temperature then fell, and it was found that the tumor had almost disappeared and the glands above the clavicle had shrunk almost to half their former size; the patient was very weak, but felt well. Some days later considerable hemorrhages occurred, and at the spot which was the source of bleeding a cancerous ulcer with exuberant red granulations was discovered. The swelling over the great pectoral became as large as a woman's breast and adhered strongly

to the ribs, extending in the form of hard infiltration into the axilla; nodules developed in the subcutaneous tissue of the epigastric region, and new glandular enlargements formed in the supraclavicular fossa and in the opposite axilla. The patient was greatly emaciated and in a very feeble condition; the author therefore had recourse again to the serum, and after three injections of 1 c.cm. the ulcer, which had attained the size of a florin, rapidly diminished by one third. After eight consecutive injections it had completely cicatrized. The principal tumor had diminished to half its former size, and the other nodules had also become smaller; the patient looked better and was stronger. To sum up the case, after the injection of 14 c.cm. of serum within the space of a month the objective state of the patient had markedly improved, which is the more surprising that the progress of the cachexia and the evolution of the tumors and ulcers were more rapid, not only after the operations, but even after the attack of erysipelas up to the commencement of the second series of injections.—*Ibid.*

TREATMENT OF RUPTURE OF THE KIDNEY.—Keen (Annals of Surgery, August, 1896,) in concluding an elaborate paper on the Treatment of Traumatic Lesions of the Kidney, based on tables of 155 cases, discusses the indications for operative intervention in cases of subcutaneous rupture of this organ. Of 118 cases of this injury that have been published since 1878, fifty were fatal. On excluding twelve cases of associated injuries of other organs, two cases in which death occurred very soon after the injury, one case in which the patient possessed a single kidney, and an uncertain case, thirty-four cases are left, in fourteen of which the fatal result was due to primary, continuous, and secondary hemorrhage combined with shock, while suppuration, including peritonitis, destroyed sixteen. In four cases only was death caused by coma, anuria, and nephritis. These figures support the view held by the author, that the dangers of rupture of the kidney are especially hemorrhage and sepsis. A more frequent resort to primary nephrectomy would, it is held, have avoided a number of deaths from both of those causes. The duty of the surgeon, it is pointed out, seems clear. Where the symptoms are threatening, particularly if there be decided evidence of hemorrhage, or probable danger of sepsis, an exploratory operation should be performed without delay. The great mass of recoveries in rupture of the kidney are the slighter cases; the graver cases do not recover unless an operation is done. In any case, therefore, with severe or dangerous symptoms, the surgeon should lean toward exploration, and in severe laceration toward early nephrectomy. Hematuria is regarded as being valuable only as a symptom showing the fact of rupture of the kidney, but not as a symptom by which to decide on operating. Not the visible loss of blood by the bladder, but the easily overlooked, but far more dangerous bleeding into the perinephric tissues, or into the peritoneal cavity, should receive the chief attention. If, then, a tumor form quickly in the lumbar region, an exploratory operation in the loin

should be immediately made, and if the kidney be found hopelessly destroyed, or the hemorrhage such as to require ligation of the renal vessels, nephrectomy should be practiced.—*Ibid.*

TETANY IN CHILDREN.—Hauser (*Berl. klin. Woch.*, August 31, 1896,) has investigated a number of cases of tetany, spasm of the glottis, and other diseases accompanied by spasm. In six cases of tetany with spasm of the extremities, the disease exactly resembled that of the adult. Spasm of the glottis occurred in all the cases, but was not necessarily severe or frequent. Fits were only once completely absent. As regards Erb's symptom, the author agrees that the increased galvanic irritability is the most constant and important symptom of tetany. Trousseau's phenomenon was not absent in any case. It persisted longer than the spontaneous spasm. This sign may be absent, but when present it is pathognomonic. Chvostek's symptom was marked in all cases except one, where it was seen only in slight degree. The author says that this symptom is not pathognomonic, and may be present in other children, but in its most pronounced form it is only present in tetany. Muscular irritability was increased in all but one case. The knee-jerks were mostly exaggerated. Most of the children were excitable, but the intelligence was unimpaired except in one case, where there was a slight degree of idiocy. A rise of temperature was only once noted. In only one case of genuine tetany was the child well nourished. Rickets was generally present. There appeared to be a connection between the appearance of gastro-intestinal symptoms and that of the tetany. Hence the resemblance between infantile tetany and the tetany in gastric dilatation of the adult. The author accepts the view that there may be tetany without spasm of the extremities. In such cases Erb's and Trousseau's phenomena are present. Such cases he puts down as latent tetany. Spasm of the glottis has nothing to do with tetany. As far as our present knowledge goes, treatment can only be radical where more or less marked digestive symptoms are present. A rapid emptying of the alimentary canal is here indicated.—*Ibid.*

PREGNANCY AND THE THYROID GLAND.—Bignami (*Weiner med. Blätter*, Nos. 4 and 5, 1895,) reports the case of a patient who passed through her first pregnancy without trouble, but a bronchocele developed during the second, and the thyroid gradually returned to its original size after delivery. During the third pregnancy the swelling reappeared, and there was much constitutional disturbance, dyspnea, and dysphagia. The patient died suddenly in the eighth month, and neither tracheotomy nor cesarean section could be performed. There was no necropsy. Pregnancy has a bad effect on all bronchoceles, but there is a true or special bronchocele of pregnancy which does not develop until gestation commences, and disappears or diminishes after delivery, to return at the next pregnancy. It is always vascular, and as dangerous symptoms may set in the induction of premature labor is often advisable.—*Ibid.*

THE AMERICAN PRACTITIONER AND NEWS.

"NEG TENUI PENNÀ."

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D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.

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STIMULANTS IN ACUTE DISEASE.

The New York Academy of Medicine, February 16, 1897, was addressed on this subject by Dr. Horatio C. Wood, of Philadelphia. In these days when the brilliancy of surgical achievement and the glamour of bacteriological findings are blinding with excess of light the eyes of the ordinary doctor, it is refreshing and reassuring to find a man of Dr. Wood's authority taking time to talk a little along the line of old-fashioned therapeutics.

For surely there are ills, pelvic and abdominal, which do not call for laparotomies, and systemic affections which may be successfully treated without antitoxines.

After some general remarks on definition of terms and the difficulty of determining just what a stimulant is, he said that in the economy function was always performed at the expense of, and the life of the individual was carried on through the alternate action of, antagonistic nerves. The question then arose, Was a stimulant an agent which caused upbuilding of structure, or was it one that brought about functional activity at the expense of structure? At the present time there were remedial agents coming to the front which acted in neither of these ways, but which in some manner, not as yet clearly understood, had the effect of fortifying the system against the attacks of morbid influences. Of this nature were the antitoxines, now attracting so much attention, which displayed not only a local but a general antagonism to disease. It was also pertinent to inquire if these could be designated stimulants.

According to either of the above definitions of a stimulant the antitoxines would appear to be ruled out, since they can be said to "cause" neither "the upbuilding of structure" nor "to bring about functional activity at the expense of structure."

The beneficent action of the antitoxines in analogy would seem to be bacterio-inhibitory, arresting microbial proliferation as alcohol (which is an antitoxin) arrests the growth of the *torula cerivisiae* in the beer vat when fermentation has produced enough of the former to enable it to exercise this inhibitory influence.

Is it not, however, to criticise but to commend Dr. Wood's conclusions that we quote them here. So leaving the *modus operandi* of the antitoxines with those who still deem it an unanswerable conundrum, we pass on to the speaker's admirable remarks upon the action and uses of alcohol, particularly in typhoid fever:

Taking up the subject of acute collapse and surgical shock he said that in this class of cases there was vaso-motor paralysis principally. If alcohol had any influence upon the vaso-motor nerves, it was that of a depressant, and it was not therefore indicated. In one of the early cases of death from ether, which occurred in Cincinnati, he recalled that the patient was freely dosed with alcohol. Here we have the depression of ether *plus* the depression of alcohol, and it was no wonder that the patient died.

In typhoid fever the general consensus of opinion was that alcohol was of great service, but there was still a question as to whether alcohol could be rightly regarded as a cardiac stimulant. The most that could be said was, that it is a very mild stimulant to the heart. In this regard it could not be compared with cocaine, strychnia, and other drugs. Notwithstanding this fact, however, it was undoubtedly a most useful remedy in typhoid. It was probable that it had the effect of increasing the resisting power of the tissues, and also that it is to a considerable extent germicidal. There was another very curious thing about alcohol, which set it apart from all other drugs. Opium and other agents, when taken into the system, carried their message to the nerve centers, and were then gradually eliminated; but alcohol, when once taken in, never came out. In health if we gave a man a wineglassful of whisky or brandy, it could always be detected in the breath; but this was not the case in typhoid if the alcohol was properly given. Here, then, was a useful point in the administration of alcoholic stimulus in this disease. If in any case the odor of alcohol could be detected in the breath, we could be sure that we were overdoing the matter, and that the patient's system had not the ability to make use of all the stimulant given. In typhoid, alcohol acted not only by furnishing resisting power, but also by repairing the tissues which were being burnt up by the force of the disease.

To such of our readers as were, like ourselves, once privileged to sit under the teachings of the learned Prof. T. S. Bell, such a deliverance comes like "a wind of memory murmuring the past."

For no student of this earnest and scholarly teacher can forget the distinctness with which he insisted upon what he termed the three physiological functions of alcohol, to wit: "That it lowers temperature, checks the disintegration of tissue, and promotes the assimilation of fat; that its effect as a stimulant is slight and noticeable only in non-febrile cases; while in fever of any kind and in typhoid in particular *it is in no sense of the word a stimulant.*"

As to the time the use of alcohol should be begun in typhoid, Dr. Wood thought that this should be at the beginning of the attack, not, he said, as a stimulant, but to fulfill the other useful functions which it performs. For instance, it had a tonic effect upon the stomach and upper intestines, and enabled the patient to take more food than he could otherwise do. When given thus early it should always be administered in small quantities, and always with the food. When the time came for it later, when the vital powers were becoming exhausted and the temperature ran high (in spite of cold baths and other measures), the alcohol should be given in just as large quantities as the system could possibly utilize. Here the only guide to the amount to be given was the power of the patient to burn the alcohol up.

Another noteworthy item of the address is Dr. Wood's view of the action of digitalis as a stimulant or promotor of nutrition in diseases which tax the heart severely. In his opinion:

Digitalis was the one agent which had power over the nutritive process. The pneumogastric was undoubtedly the trophic nerve of the heart, and it was the peculiar function of digitalis to stimulate this. It was this power of digitalis to increase the trophic power of the nerves of the heart which made it so valuable. It was an agent which acted as a stimulus both to function and to nutrition.

In typhoid he said that there was nothing which acted so efficiently on the heart as digitalis. It had been found that high temperature makes this organ in a measure irresponsive to digitalis, and therefore it was usually necessary to give the drug in quite large doses.

These teachings are certainly of great practical value, and should remove the odium which some overcautious therapeutists have cast upon the employment of digitalis in typhoid fever. Digitalis is not only not a dangerous remedy in this disease, but is rationally called for in doses competent to produce the full physiological effect of the drug.

In conclusion Dr. Wood spoke of the reinforcement of one stimulant by another, and related some of his experiments on animals in illustration of the point. This he had called the law of crossed action, a double influence being exerted upon the brain centers; and he had found that the principle had proved of practical value in the treatment of typhoid and other exhausting diseases. As an instance of its efficacy he mentioned a case that seemed altogether hopeless, in which double pneumonia supervened upon a severe attack of erysipelas. Here cocaine was administered in conjunction with strychnia with happy result.

Notes and Queries.

SEPTICO-PYEMIA TYPHOSA.—Kühnau of Kast's clinic (*Berl. klin. Woch.*, July 27, 1896,) relates a remarkable case occurring in a pregnant woman, aged thirty-two. The illness began on April 20th with *malaise*, headache, etc. On the 27th a healthy child (which lived) was born. On the next day there was delirium and stupor. On admission on the 29th the abdomen was much distended, and there was diarrhea. On May 5th the characteristic typhoid rash was present. On the next day there was uterine hemorrhage. Keilmann, who then saw the patient, found the uterus enlarged, and the vagina and cervical canal filled with ill-smelling clots. The uterus was washed out, and suitable local treatment was continued. On May 10th, the typhoid bacillus was found in the blood. About a week afterward defervescence began, but some days later a relapse occurred. The patient died about seven weeks after the onset of the disease. There was no trace of a typhoid lesion in the intestine, the lymphoid tissue and mucous membrane being quite healthy. The mesenteric glands were enlarged and showed necrotic foci. The spleen was also somewhat enlarged, and the follicles swollen. The kidneys showed a suppurative nephritis. A microscopic examination of the endometrium did not reveal any bacteria, whereas in the necrotic foci in the mesenteric glands and kidneys, and also in the spleen, a bacillus exactly resembling the typhoid bacillus was found in small numbers. In the left spermatic vein there was a clot. A thorough bacteriological examination of the lesions in the mesenteric glands, kidneys, and spleen showed the presence of a bacillus with all the characteristics of the typhoid bacillus. These bacteriological results were confirmed by Gotschlich. The clinical course of this case showed the manifestations of a septico-pyemia, but the subacute onset, the presence of a typhoid rash, and the diminished number of leucocytes supported the diagnosis of enteric fever. The presence of the bacillus in the blood showed an atypical case, and the characteristic lesions of this micro-organism in the intestine were

absent. There are two possible explanations of this case, namely, (1) the infection took place through the endometrium, the bacillus thus gaining access into the blood; and (2) an intestinal infection occurred, but the bacilli passed over the usual site of their localization and got into the blood stream. It is difficult to decide which explanation is the correct one. It was a case of "typhus sine typho."—*British Medical Journal*.

CHLOROSIS AND PAPILLO-RETINITIS.—Dieballa (*Deut. med. Woch.*, July 9, 1896,) describes a case in a girl, aged twenty-one, in which optic neuritis occurred in the course of chlorosis. She had first suffered from chlorosis when she was fourteen years old. Recently she had complained of severe headache and vertigo, but there was no vomiting. The menses were irregular. In March she had mistiness of vision, and in reading the letters appeared blurred. On admission (April 10th) there was marked anemia. The hemoglobin stood at 31, and the red blood cells at 3,880,000. The number of white cells was 7,200, and the specific gravity of the blood 1040. A papillo-retinitis was present on both sides, and there was slight paresis of the left abducens nerve. On April 20th vision in both eyes stood at $\frac{5}{7}$. The right papilla was grayish-red and swollen, the outlines of the disc being very blurred. The veins were wide, the arteries narrow, and the vessels in places covered with exudation. The left disc showed similar changes. In May the neuritis was much less marked, and in September the patient was quite well. The body weight had increased 4 kilog. The hemoglobin stood at 75, the number of red cells at 4,200,000, the white cells at 5,000, and specific gravity was 1055. The fundus oculi was quite normal. The neuritis was undoubtedly caused by the chlorosis, all other causes having been excluded. Such a complication of chlorosis is exceedingly rare. The author then refers to the recorded cases by Gowers, etc. The explanation is still quite hypothetical. Sometimes loss of blood produces disturbance of sight due to a neuro-retinitis. In the above-named case overexertion (dancing) had made the chlorosis suddenly worse. Shortly after this overexertion menstruation reappeared, and the author assigns the neuritis to these two deglobulizing factors. The intense headache in this case along with the neuritis suggested the possibility of a cerebral tumor. Rest and iron treatment, however, soon caused the headache to disappear.—*Ibid*.

HYPERTROPHY OF THE PROSTATE TREATED BY EXCISION AND TORSION OF THE VAS DEFERENS.—Pavone (*Il Policlinico*, No. 15, 1896,) cites thirty-four cases of prostatic hypertrophy where the vasa deferentia were excised; four of these died of other diseases; in two cases the results were negative; the remaining, twenty-eight were either cured or improved. The author believes that when good results do not follow this operation it is because complete obliteration of the vas deferens has not been obtained. He therefore advises that, in addition to excision, the ends of the canal

should be twisted so as to insure complete closure. In the case reported about 3 cm. were excised and the ends twisted; on the same day the temperature fell, the frequency of micturition diminished, and the vesical tenesmus ceased. On the fifth day the patient could completely empty his bladder. On the fifteenth day there only remained some slight hypertrophy of the median lobe, and after two months the patient kept in the best of health.—*Ibid.*

"MIRROR SPEECH."—Mirror writing, whether as a pathological symptom or when practiced for the purpose of rendering written communications illegible in the ordinary way, is a well-known abnormality, but it has been reserved for Dr. Doyen, of Paris, to discover the first case of "mirror speech." A little girl, twelve years old, had been trepanned successfully for a cerebral abscess the result of otitis; but for some time after the operation aphasia remained persistent. By degrees, as the patient's general health improved, she began to utter sounds which, although distinctly articulate, were nevertheless totally incomprehensible; such, for example, as "te-tan-ma; yen-do sieur-mon, chant-mé; le-quil-tran-ser-lais-mevous-lez-vous." The young girl seemed to be quite unaware of her curious incoherency, and the inability of her friends and attendants to understand what she wanted consequently made her very angry. She evidently attributed their amazing lack of comprehension to stupidity, and sought to stimulate their intelligence by repeating over and over again a number of apparently unconnected syllables, similar to the foregoing, with an ever-increasing volubility. At last one of the bystanders suggested that what she was saying should be taken down in writing; and no sooner was his idea carried out than at once the key to the enigma became manifest. The child was simply speaking her sentences backward, beginning at the last syllable to end with the first, and that without the slightest mistake even in a combination of a dozen or more words. The example given above will be found, when transposed, to resolve itself into the following elementary sentences: "Ma tante; Monsieur Doyen, méchant; voulez-vous me laisser tranquille." This remarkable aberration of speech continued during five weeks, when the recalcitrant syllables began once more to fall into their proper places. Since then several months have passed without any signs of a relapse, and when last seen the little patient was in a flourishing state of health with perfect articulation.—*Lancet.*

THE MARQUIS OF DUFFERIN ON THE FUNCTIONS OF A HOSPITAL.—At a public meeting of the citizens of Belfast, held on December 9th, to consider the desirability of erecting a new hospital as a fitting memorial of Her Majesty's long and eventful reign, the Marquis of Dufferin and Ava, in moving a resolution, spoke of the functions of a hospital in the following beautiful way: "Quite apart and independent of its agency in relieving individual suffering there are other functions of an equally important

character which a hospital fulfills. A hospital is an entrenched castle from which medical science makes its onslaughts on disease and death. It is an arsenal where she forges her arms and invents new weapons; it is a laboratory from which there emanate those specifics which, it may be no exaggeration to say, are occasionally potent, not only to arrest but absolutely to dominate and annihilate epidemics that were once considered so formidable. Among many scientific bodies, and certainly in the domain of art, there are probably none which have made such progress during the last twenty years as medicine and surgery; but I think it will be admitted that those triumphs have not been effected through the experience gained in private practice, but are the results of those ample fields of observation placed at the disposal of our great physicians and surgeons in the magnificent hospitals that exist in other parts of the kingdom. The efficiency of a hospital must in great part depend on the size of its workshops and the extent of the field over which it can apply its remedies."—*Lancet*.

ANTAGONISM OF HEART DISEASE AND PHTHISIS.—Otto (*Virchow's Arch.*) gives a collection of cases bearing upon the question of the antagonism of disease of the heart valves and pulmonary tuberculosis. He deals with 48 cases of valve disease and 185 cases of phthisis in males, 63 of valve disease and 133 of phthisis in women. Among the 48 male heart cases primary tuberculosis was found once, and in ten cases progression of the lung condition was hindered by the heart disease. Among the 185 cases of phthisis 29 cases of chronic and 4 cases of recent endocarditis were met with. In women 4 cases of phthisis were met with among the 65 cases of heart disease, and among the 133 cases of phthisis secondary heart disease was met with fifteen times. Three cases of retardation of the lung mischief as the result of intercurrent heart disease occurred.—*British Medical Journal*.

THE SPREAD OF BUBONIC PLAGUE.—The natural history of plague is a subject which will always have an interest for the student of epidemiology, and although we may be well assured that we shall never again witness in the streets of London the scenes so graphically depicted by Daniel Defoe in his "Memorials of the Great Pestilence in London in 1665," it is nevertheless of more than academic interest to note that some weeks ago there were introduced into London from the East a couple of cases which presented clinically and pathologically a strong resemblance to bubonic plague. All necessary precautions were taken, and the authorities concerned acted with every discretion in the matter. The presence, too, of bubonic plague in our Indian Empire, and the recent advances which have been made in the bacteriology of the disease, are facts which all contribute to invest the paper on the spread of plague, which is to be read to-night (Friday) by Dr. Cantlie before the Epidemiological Society of London at 11 Chandos Street, Cavendish Square, with exceptional interest.—*Lancet*.

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R. C. MCCHORD, M. D.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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NO. 10.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PREVENTIVE MEDICINE.*

BY R. C. M'CHORD, M. D.

Ladies and Gentlemen, and Members of the Kentucky State Medical Society:

Those of you who are familiar with the history of medicine, and in memory revert to the period when the barber's pole of to-day was the sign of the physician, and the application of leeches gave him humble employment, and in part a title to his calling, when the physician was little more than a physical laborer, ignorant, socially underrated, and in heraldry utterly repudiated; I ask you to observe the contrast to-day. He who was once scoffed at and repudiated is now honored, trusted, a leader in science, the recipient of national rewards and exalted honors. Surely there is nothing but history to identify the humble leech of past centuries with the medical scientist of to-day.

The plague, which once ran riot throughout the eastern world is now almost extinct, the leper almost unknown. Smallpox, cholera, yellow fever, and diphtheria are yearly being more fully manacled; scurvy has been swept from our seas; and to-day we stand within the threshold of a progress in medicine unprecedented in the history of the world and the dynasty of Preventive Medicine rules.

Medicine has always been a science, and scientific principles, as applied to preventive medicine, are the alpha and omega of progressive medicine. The practitioner of medicine must learn that it is not alone

* Delivered at the forty-second annual meeting of the Kentucky State Medical Society at Owensboro, Ky., May, 1897.

his province to treat diseases and accidents, but he must investigate and search into their nature and causes; and the knowledge thus acquired should be utilized, not alone in their cure but in their prevention.

The intelligent gardener, when he sees his trees and plants blighted, no longer attributes it to a mysterious dispensation of Providence but seeks to know its cause, and by patient investigation finds the offending parasite, which he proceeds to destroy with fire and germicides—the logical sequence of cause and effect. He simply seeks to know what condition has been violated; his treatment consists in the correction of that violated condition, and is simple and rational. May we not learn a lesson from this as medical men, and make application of the same methods in the domain of medicine? Though the subject is vastly more complex and difficult, yet the principle is the same.

Health means sound structure and normal function, and depends upon obedience to law, both mental and physical; and disease means transgression of these laws, and is not to be considered as something extraneous and unrelated to the ordinary sequence of events, but as something related by definite and distinct conditions to the natural order of things, and is to be investigated and explained as is any other fact in nature.

The men who work in the laboratories, whom we so often look upon as theoretical and impractical, are those found in the foremost ranks of medical science, doing a work which generations coming after us will only be fully able to appreciate. They are the men who have revealed through the microscope, during the last two decades, to the medical world the definite cause of many diseases hitherto unknown, and have demonstrated that many of them are preventable.

An ounce of prevention is worth a pound of cure; an old saying, the full import of which as applied to medicine has but recently begun to be appreciated. Ignorance as to the known means and its proper application for the prevention and spread of contagious and infectious diseases is looked upon with apprehension; theories are giving place to practical demonstrations, and the contemplation of the proofs that have been brought to our knowledge recently by modern investigations as to prevention of diseases are conceptions which carry us on until we are lost in the impossible realization of its possibilities.

All the world over there are those who are working with the keenest interest, and the daily discovery of the bacteriological causes of different diseases, and their consequent rational prevention and

treatment, are but a few of the examples of observations and investigations which have made the science of medicine and surgery what it is at the present time.

After many years of painstaking investigation Jenner was able to give to us the valuable knowledge that there was one disease, smallpox, which could be ameliorated, and in many cases complete immunity obtained therefrom by the process of vaccination. If smallpox, a germ-producing disease, though its particular infectious agent has not yet been isolated, could be thus stamped out, why not others of like origin whose bacilli have been isolated and are known?

Acting upon this line I am glad to know that the profession has not been asleep within recent years, as is witnessed by the works of Lister, Virchow, Billroth, Pasteur, Koch, and others. Medicine of to-day is but the outcome of the progressive spirit which dominated these minds, and a greater enthusiasm exists in its future development than the past has ever witnessed.

The recognition of the bacillus tuberculosis and the researches resulting therefrom have taught us that consumption is a preventable disease, and in the destruction of the sputum we have a means at our command of preventing the contamination of healthy individuals. The consumptive, whose traits no professional acumen is required to recognize, frequents our crowded streets and railway cars, uses the same blankets in the Pullman sleeper and hotel, expectorates, as all such do, sometimes in the spittoon, sometimes in the handkerchief, but more frequently on the floor or carpet, where the germ-laden expectoration becomes rapidly dry, and, ground with dust, rises in the air and is inhaled into the lungs of some susceptible fellow-individual, who in time develops the disease, and ancestral inheritance is credited as the cause. The consumptive does this wholly unrestrained, and innocently ignorant of the fact that he by his careless expectoration is sowing the seeds of a disease among others which causes the death of more of the human race than cholera, smallpox, and yellow fever combined.

I believe that the proverbial disposition of the American people to spit any and everywhere will or ought to be the subject of future legislation, and consumption will be classified among the diseases preventable, along with cholera, diphtheria, smallpox, etc., a subject for the health officer's most earnest attention.

The discovery of the antitoxin of diphtheria and its application to the prevention and cure of the diseased, by which the mortality has

been largely reduced, and many exposed have been rendered immune to its ravages, the preventive inoculation in hydrophobia, as practiced by Pasteur and others, the identification of the bacilli of tetanus or lock-jaw and the elucidation of its prevention and curative treatment, and the knowledge of the cause, mode of propagation, and prevention of a host of other diseases, makes this branch of medicine exceedingly interesting and far-reaching in its ultimate results.

The prevention of inflammation in accidental and operation wounds has been to the surgeon a study of general importance, and many have been the theories advanced, advocated, and practiced from the time of Hippocrates and Galen until Lister inaugurated a new era in surgery by advocating and practicing the antiseptic or preventive treatment.

"To the immortal Lister," says Nicholas Senn, in a recent address, "belongs the honor of having opened a systematic and successful crusade against the surgeon's most treacherous enemies, the pathogenic microbes. The great principles which he conceived and introduced into practice created a new era in surgery. Antiseptic surgery is one of the many fruits of his genius, and to him we as a profession owe more than to any other surgeon, dead or living.

"Antiseptic and aseptic surgery have smoothed the rough and rugged pathway of the practical surgeon; ordinary cleanliness has given way to surgical cleanliness. The almost universal introduction of antiseptic and aseptic precautions in the treatment of wounds in private and hospital practice has nearly eradicated the three greatest enemies of the surgeon of old, namely, hospital gangrene, erysipelas, and secondary hemorrhage, and minimized the occurrence of suppuration and its manifold immediate and remote complications.

"No wonder," he says, "that a sense of security created by such wonderful changes made the surgeon bold. In consequence of such revolutionary changes wrought in the practice of surgery new territories were invaded, and organ after organ, the seat of injury or disease, were subjected to the surgical intervention."

Thus we see, by preventive means utilized and practiced by Lister, and the principles he taught, surgery has been advanced to a science, and the great body of men, women, and children who have been subjected to the surgeon's knife since his principles were promulgated and practiced are living examples of the beneficial effects of this one principle of prevention, which has saved them from hours, days, weeks, and months of suffering, suppuration, and possible death.

If the brilliant achievements of modern surgery and medicine are the direct results of these methods of investigation, future improvements must depend on the same source of information, and the physician, be he bacteriologist, specialist of special organs, or the greatest of all specialists—the general practitioner—must remember that he is pledged to the alleviation of suffering and to contend against death; and instead of the promiscuous, indefinite, internal, external, and eternal administration of drugs, the practice of sanitation and hygiene should be one of his special prerogatives.

Just eighteen years ago before this society at Danville, at the dedication of the McDowell monument, many of us had the pleasure of listening to an address full of wisdom, sound judgment, and common sense, from a man who was summing the professional wisdom of a long life, colored in no way by association with special sanitary projects or interests. I refer to the address of the Father of American Surgery, the peer of the world's greatest surgeons, Samuel D. Gross, of Philadelphia. On that occasion Dr. Gross said: "Young men of America, listen to the voice of one who has grown old in his profession, and who will probably never address you again, as he utters a parting word of advice. The great question of the day is not this operation or that—not ovariectomy, or lithotomy, or a hip-joint amputation, which have reflected so much glory on American medicine—but preventive medicine: the hygiene of our persons, our dwellings, our streets—in a word, our surroundings, whatever or wherever they may be, whether in city, town, hamlet, or country. This is the problem of the day—the question which you, as the representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow-citizens; the question which above and beyond all others should engage your most serious thought and elicit your most earnest co-operation. When this great object shall be attained, when man shall be able to prevent disease and to reach with little or no suffering his three-score years and ten, so graphically described by the psalmist, then, and not till then, will the world be a paradise."

When a man like Samuel D. Gross, whose life was devoted to the benefits of suffering humanity, whose heart and brain were always open and ready to give advice to the younger men of his profession, utters words like these, we must give heed.

It is not for me to tell you, intelligent members of the Kentucky State Medical Society, that these were words of wisdom, uttered at a

time when many of the causes of diseases now known to be preventable were still shrouded in mystery, when hygiene was reluctantly admitted into the teaching faculty of our profession, and sanitary and State boards of health were the exception and not the rule.

Sanitary education and sanitary reform must begin in the household. Lay its foundation in the hearts of the mothers of the country and at the sacred shrine of infancy. Teach mothers to nurse their children—not too much nor too often; teach them that a child can be starved to death by too much food, and that frequently the more they are fed the faster they are starved; teach them that the overdistended stomach in infancy creates a morbid appetite which can not be governed in after years, and that the miserable dyspeptic and drunkard is but the full fruition of what might have been prevented had a proper care been taken at the cradle. Teach them that fresh air, sunlight, and pure, clean water, both internally and externally, are a part of God's best gifts to man, to be used, not wasted. Teach them this, and preventive medicine will be given an impetus far-reaching in its effects.

You people outside of the medical profession might well ask, Why, if diseases are preventable, are they not prevented?

This is the burning question that confronts us to-day as a medical profession, and will continue to confront us until the masses of the people, your and my clients, understand the importance of hygienic laws and cease to be indifferent to their observance.

Thorough education in hygienic and sanitary matters and training of the public mind to its principles should become a distinct branch of learning and culture, and its teachings accepted, and laws and regulations enacted to enforce its precepts by both State and national governments.

Temporizing legislation, shot-gun quarantine, and appropriations of small sums of money to stamp out epidemics, under the spur of emergencies, do not befit this age.

Our government, which typifies all that is great, good, and thoughtful for the welfare of its citizens, strange to say, has made little or no effort looking to the preservation of the health of the masses. By virtue of our form of government that unity of action necessary to the maintenance of the public health has never been realized by our law-makers, and never will be, I fear, until the medical profession arises in concert of action and demands a place in the councils of the nation; and that the public health be intrusted to a department of the government especially

charged with its administration, with equal independent executive authority as is given other national departments. This question of a national department of public health, with an executive officer at its head who will be a member of the President's Cabinet and have a voice in its deliberations, is being agitated by the American Medical Association and other medical societies with some assurance of ultimate success. Let us as individuals and as a society join with them to the utmost of our capabilities in their efforts, and demand of the people outside of the medical profession and their rulers a place of honor in their councils which is ours by right of equity and justice. When this has been obtained, and our nation has obtained the protection offered by an unselfish profession against preventable diseases, then will the demands of modern enlightenment be satisfied.

LEBANON, KY.

OCCIPITO-DEXTRO POSITION OF THE FETAL HEAD.*

BY ROBERT W. STEWART, M. D.

It is universally acknowledged that the occipito-right-posterior position means generally a delayed labor, and sometimes danger to both mother and child. It is one, therefore, which has been much discussed; so much so that nearly every point in etiology, mechanism, and management has been worked at if not worked out. In spite of this discussion and this work the subject is still capable of further consideration. To the obstetrician who has sat for hours trying to relieve the suffering of his patient, or who has encountered the locking in the pelvic cavity of a head which refused to rotate, or, still worse, who has had to grapple with a case of posterior rotation of the occiput, the wish has undoubtedly often come that there could be some way found for obviating these difficulties. The trouble has been that the disposition is to wait for nature to complete the work, to interfere only when the exigencies of the case demanded it; a good rule on general principles, but one which still depends largely upon the old superstition: Beware of meddling midwifery.

The secret of the successful management of the cases lies, as I believe, in early interference, in the attempt to change the position in the beginning, to remedy the bad position later if possible—to maintain

* Read before the Obstetrical Society of Cincinnati, November 18, 1896. For discussion see page 380.

flexion, in a word. What I shall have to say in this paper is the result of a rather careful study of the subject and of personal experience.

For the purpose of arriving at a working basis I have analyzed the last one hundred cases of labor which occurred in my private practice. Of these cases

| | |
|-------------------|-----------------------|
| 61 were | O. L. A.=61 per cent. |
| 28 were | O. D. P.=28 per cent. |
| 4 were | O. D. A.=4 per cent. |
| 1 was | O. L. P.=1 per cent. |
| 2 were | Breech.=2 per cent. |
| 1 was | Footling.=1 per cent. |
| 3 were | Cross.=3 per cent. |

The percentages agree so nearly with those of most authorities that it is altogether probable that a larger number of cases would make the agreement practically exact. Twenty-eight per centum of O. D. P. positions is somewhat higher than that usually given, and perhaps the objection may be raised that the diagnosis was not always correct. The objection may be a valid one, but, I think, will lose some of its force when the method of making the diagnosis is stated. This method is as follows:

Abdominal palpation shows the feet of the child to be in front near the median line, or to the left of it and above the level of the umbilicus; the dorsum may (with difficulty) be mapped out posteriorly and to the mother's right; the bulk of the fetal head is to the right of the symphysis pubis, unless engagement and descent have occurred; fetal heart sounds usually hard to find, when found are behind and to right side of mother and below the umbilical level; digital examination, before dilatation of os uteri, shows uterus high in vagina; after dilatation the anterior fontanelle in pelvic axis or slightly in front of it and directed toward left pectineal eminence; the occiput to the right and behind; the sagittal suture in right oblique diameter of cavity; usually an ear can be found with the posterior aspect presenting to the right sacro-iliac synchondrosis. With these signs made out, the diagnosis needs only the confirmation of the rotation of dorsum to right thigh of the mother after birth of the head. The existence of these signs coincidentally or in succession can leave but little doubt in the mind of any one.

With the head well flexed and presenting at the pelvic brim in the right oblique diameter—in other words, with the suboccipito-bregmatic and biparietal diameters (each three and three fourths inches) lying in the two oblique diameters of the mother's pelvis (each five inches)—

there should be no difficulty in the head's passing quickly down to the pelvic floor and then rotating, for the space is ample. This occurs in a considerable number of cases, and the labor should not be unusually prolonged. Certain contingencies may, however, arise and change what promises to be an easy delivery into a very difficult one. They are, in part, when dorsum of child is from the beginning or rotates afterward to back of mother, thus producing posterior rotation of the occiput; when the pelvic floor is relaxed, and thus either does not give resistance enough to make anterior rotation possible, or else permits the flexed head to sink so low in the pelvic cavity as to allow impaction between the tuberosities of the ischium—a condition of affairs which is conceivable in multiparous women who have relaxed or torn pelvic floors; when the child's head is relatively larger than the mother's pelvis; and, finally, when extension of the head occurs, a complication which lies at the bottom of most of the difficulties occurring in the occipito-dextro posteriors, as well as those which are found in occipito-anterior positions.

It is within the range of possibilities, at least, to say that the dorsum of the child may originally be turned to the back of the mother, and yet the head enter flexed at the pelvic brim and in the right oblique diameter. Such a condition would of necessity mean posterior rotation of the occiput for obvious reasons. (Olshausen.) Dubois' experiments show that rotation (anterior) of the occiput depends upon the resistance of the pelvic floor, and that when this is relaxed rotation does not take place, but the head is driven straight down through the pelvis and out through the vulvar orifice without change, except the change of direction which comes from following the curved course of the pelvic canal. Given, then, the condition of relaxation of the pelvic floor, delivery may occur, if the head be not too large, without anterior rotation; but the case becomes a very different one when disproportion between head and pelvis exists. Then locking of the head may be expected, especially if flexion be not sharply maintained, because of two factors, the gradual inward inclination of the ischial bones, and the substitution of the occipito-frontal, or, worse still, of the occipito-mental diameter of the child's head for the suboccipito-bregmatic.

The middle planes or triangular planes of the pelvis are formed by the ischial bones, and are separated above by the transverse diameter of the inlet, five and a fourth inches, and below by the same diameter of the outlet (distance between the tuberosities), four inches. A large

head may pass down through this space, if well flexed, without anterior rotation, providing there be great molding, but even a moderate (average) sized head, if extended, can not pass through, for the reason that four and a half inches can not pass through four inches. Under such circumstances anterior or posterior rotation must take place or irremediable locking will result. Extension of the head is therefore the cause of the greatest difficulty in these positions, as it is in all other positions of the vertex. It is extension which causes the long delay in these labors. As the head enters the brim with its occiput to the right and behind, the biparietal diameters are in relation with the short line joining the promontory and the right pectineal eminence, while the bitemporal diameter swings clear in the left half of the inlet, in relation to the longer line joining the left sacro-iliac synchondrosis and the symphysis pubis. (Reynolds.) If the pelvis be relatively small, the head is apt to be caught, even when well flexed, at the brim, the two parietal eminences at the ends of the short line above referred to acting as pivots upon which the head swings, and thus permits the freely movable occiput to drop downward, that is, to extend the head. Should the head pass through the inlet, however, in a flexed condition, the wider space of the cavity might allow the occiput to slip into the oblique diameter of the cavity, thus release the forehead and allow it to descend and so bring about extension. Indeed, extension may occur from a good many combinations, and it is unnecessary to follow any more of them. Suffice it to say that extension is very common, and when once begun may go to almost any extent, each step in that direction tending to make the delivery more difficult.

Management. When the child's head is high up, has not engaged in the pelvic brim, and the os is still undilated, if at the same time the dorsum of the child lie in the right and toward the mother's back, if the labor has really begun, the object to be attained is engagement of the head in the flexed condition. This object will be best brought about by bringing the dorsum forward, as can often be done by abdominal manipulation. Success in this manipulation, thus changing the position into a right-occipito-anterior, justifies me in recommending the effort. If the bag of waters be still intact and the head be still movable, there is no more difficulty, nor is there more danger, than there would be in the attempt to change the presentation from a cross to a head or breech, and certainly no one would hesitate to attempt that maneuver. If this be successful, the dorsum is changed from the right

sacro-iliac synchondrosis to the right pectineal eminence. A quarter circle, or 90° , which is entirely consistent with the permissible twisting of the spinal column, and which would of necessity convert the position into the safe R. O. A., except in those cases in which the head is already engaged in O. D. P. This bringing of the dorsum to the front and right must be followed by keeping up the advantage gained in case the head be already engaged in O. D. P., and if so maintained becomes a powerful factor in producing anterior rotation when the head reaches the cavity. It is all that can be done at this early stage of the labor, or until the os be dilated. As the os dilates and the head descends, the diagnosis can be confirmed, and, what is now of chief importance, the presence of flexion or extension can be determined. With the dorsum to the front and good flexion present, there is no need of doing any thing; if the dorsum be behind, yet the head be well flexed, the same is true, except that there is greater need for watchfulness to make sure that the occiput does not rotate posteriorly. To prevent such a disaster the woman should be placed upon the right side, and if necessary the whole hand introduced into the vagina and the head brought into the proper position. The direction which the anterior fontanelle takes will determine the necessity for interference. When the anterior fontanelle can be easily reached and the sagittal suture travels toward the right sacro-iliac junction in a line parallel to the plane of the outlet, extension has begun. By carefully passing one or two fingers in front of the fontanelle—that is, behind the symphysis, or a little to the left of it—very moderate pressure upward will often suffice to flex the head. If at the same time the pressure be made backward as well as upward, anterior rotation will be helped. Should this effort at flexion fail, the whole hand (left) may be introduced and an effort made to reach the occiput. This will at times enable one to get a finger on either side of the occiput, if not directly over it, and thus bring it downward and even possibly forward.

I have been able by these manipulations to bring about flexion and anterior rotation in the three last cases of O. D. P. position which occurred in my practice, and have thus satisfied myself that the labor has been materially shortened and the patient's sufferings greatly diminished. So great is my confidence in this method that I think only two classes of cases can occur in which serious difficulty can arise, namely, posterior rotation of the occiput, and large heads jammed down into the pelvis.

Posterior rotation of the occiput must be managed according to the established rules of obstetrical practice. My object is to tell how to prevent it if possible, not to tell how to treat it when it has occurred. This treatment is fully set forth in all text-books.

For those cases in which a large head is jammed down into a comparatively small pelvis, especially if the head be in extension, the difficulties may be remediable or not, according to circumstances. If the case has been under observation from the beginning of labor, and the passage of the head through the pelvis was possible under any circumstances, the locking could probably have been prevented by following out the method of procedure already suggested, the maintenance of flexion by pushing up the forehead or pulling down the occiput by manual manipulation. The advocacy of early interference on the part of the physician is advanced to prevent this complication. If the case be seen too late to prevent this complication and there be no progress in the way of flexion, which, by the way, may occur even without help from the physician, the rule as laid down by most authorities is to apply the forceps. If the forceps be applied to the sides of the pelvis and thus slipped around the child's head, catching it over face and occiput as it must do, dragging downward can only make the difficulty still greater, for the reason that extension must be increased. It may, however, be possible, by grasping the head firmly and lifting the shanks of the instrument toward the left of the mother, to so depress the occiput as to produce flexion, and thus materially assist the progress of the case. This is doing what manual manipulation seeks to do, and should be employed only when the latter fails, because of the danger to the child from compression, and to the mother from laceration of the vagina and pelvic tissues. Forceps applied in the reversed position are so apt to project beyond the head and tear the soft parts of the mother that their use in this way is certainly a limited one. That limitation is the failure of all other methods. When it is possible to assure one's self that the blades do not project beyond the head, it is possible to get the fingers about that head with sufficient freedom to make manual manipulation tolerably easy of performance. Forceps applied to the sides of the head, and not in the reversed position, should have rather straight, narrow blades, and should be placed well back upon the head, so that when traction is made the occiput may be brought down in the effort to restore flexion. I use the axis-traction forceps in these cases, keeping the shanks to the front

as far as possible, and as far apart as is consistent with a perfect hold upon the head. This is to prevent pressure upon the child's neck. If anterior rotation occur now, it should be allowed to proceed unrestricted by the instruments.

The theory of this application of the forceps is as follows: Inasmuch as the head lies in the right oblique diameter of the pelvic cavity, the forceps can be easily applied to the sides of the head, because of the comparatively great distance of the left oblique diameter of the cavity, one blade lying in front of the left sacro-sciatic notch, and the other in the right anterior inclined plane. When the instrument is in position, if the shanks be carried forward and toward the left, the occiput will be dragged downward, whether the blades be over the whole sides or only over the posterior aspects of the sides of the head. This carrying forward permits of a greater or less separation of shanks from traction-rods, thus converting the forceps into a lever of that class in which the power is between the weight and the fulcrum. The shanks held in the one hand of the operator are the fulcrum; the child's head within the grasp of the blades is the weight, and the other hand of the operator acting through the traction-rods is the power.

Traction upon the rods now means, of necessity, pulling the head in the direction of its long axis, or toward the pelvic floor and the posterior inclined plane—that is, the increase of flexion, or its restoration if already lost. The power may be applied in the direction of the long axis of the head at an acute or at a right angle to that axis, according to the amount of separation which is possible between shanks and traction-rods.

If the ordinary forceps were applied to the sides of the head in O. D. P. positions, traction can only be made in the axis of the pelvis and the impaction thus increased. The axis-traction forceps applied in the manner described avoids this danger.

In carrying the shanks forward, or the rods backward, it is necessary to exercise great care that the soft parts of the mother are not wounded. As descent proceeds the shanks and rods can be separated more and more and thus the flexion be progressively increased.

Following the descent of the head, anterior rotation will occur, so that the forceps, if allowed to remain long enough, will sweep through a quarter circle, and thus come to lie with one blade in the left anterior, and the other in the right posterior inclined plane, with the ends of the blades lying toward the posterior aspect of the pelvis. The instru-

ments should, however, be removed before they reach this position, and, if necessary, reapplied as in the ordinary occipito-anterior positions. Extraction should not then be difficult, except in extraordinary cases.

While all of this is true and has been demonstrated, at least to my own satisfaction, it should only be resorted to when manual manipulation fails, for the reason that hard, unresisting metal is always more liable to tear the tissues than the compressible hand. Consequently, whenever the diagnosis of posterior position is assured, and the head is large, a persistent effort should be made to maintain flexion by keeping the sinciput pushed upward. If necessary the whole hand may be introduced through the vulvar orifice—of course, under anesthesia—the occiput grasped and dragged downward, the child's dorsum being kept toward the anterior abdominal aspect of the mother by the other hand of the accoucheur.

Certain objections will be urged by the more conservative practitioners, and they are of such force that they should be met before this subject is completed. These objections are: The danger of sepsis from too much internal manipulation, the greatest danger arising from a possible introduction of the non-pathogenic germs from the acid medium of the vagina into the alkaline medium of the cervix, and their consequent change into virulent forms; the unnecessary manipulation, since so many of those cases end spontaneously; the inefficiency of the hand in producing any change in position of head when there is impaction.

In these days of asepsis, when cleanliness of the hand and arm can be almost absolutely assured, the fear of the introduction of septic material can be completely done away with, and the danger of carrying non-pathogenic germs into different media and consequent production of virulence ought to be reduced to practical nothingness. Perfect cleanliness, surgical cleanliness, is certainly as possible for the obstetrician as it is for the gynecologist or the general surgeon, and should give as much assurance for the one as it does for the other. The non-pathogenic forms can be removed from the vagina by irrigations and scrubblings, if you please, with solutions of creolin and other antiseptics. This objection is rendered still weaker by the fact that all of the manipulations proposed are used when positive necessity for interference arises, or when there is danger or actual presence of abnormal presentations.

The second objection is met by the fact that while many of these cases end spontaneously, a good number of them do not so end until great risk of exhaustion of mother and physician and possible death of the child have been incurred. It is certainly worth a great deal to shorten the labor and thus gain all of the consequent advantages to all parties concerned. As for the inefficiency of the hand in producing results, I can bear distinct testimony to the contrary view. It is astonishing what can be done at times by patient, persistent effort, and it is better to so employ one's time rather than in sitting around or trying to obtain some sleep, while the groans and supplications for help are continually sounding in one's ears.

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CINCINNATI, O.

IMMUNITY FROM GONORRHEA IN THE MALE.*

BY I. N. BLOOM, A. B., M. D.

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A glance over the literature of gonorrhea past and present surprises one by the ingenuity brought into play to show why a person having intercourse with gonorrheal subjects so often escapes infection. It seems to me that writers have gone out of their way to devise complicated theories when the simplest and truest should have been obvious. Before Ricord's time the statement was made that the gonorrheal virus was frequently deposited in the vagina of the female prostitute, that the next comer in his intercourse would take it away, contracting the urethritis himself, while his successor *in coitu* would escape unharmed:

R. W. Taylor, in speaking of vulvo-vaginal abscess, tells how the purulent contents of the abscess may be milked through the duct and act as a contagium for the first one or two who have such intercourse,

* Read before the Louisville Clinical Society, April 27, 1897.

whereas those following immediately frequently escape entirely, the abscess having been temporarily cleared of all noxious matter by the friction of the first or second intercourse. These and other theories have been advanced to explain why, of men and women exposed to ostensibly the same danger of infection, some escape and others contract the disease.

Clinically these theories fail most miserably, for we find, for instance, that a given prostitute infected by A may not infect B and C who follow, may infect D in his turn; E may escape, while F and G contract the disease—this regardless, within certain limits, of the time which intervenes between the intercourse of A to G.

On the other hand, in the case of the vulvo-vaginal abscess where a number of men have intercourse in quick succession, my experience has shown me that the last comers are as liable to be the victims of gonorrhea as the first, who are supposed to have milked out the contents of the abscess, and any may escape. It is pretty generally understood, to-day, that gonorrhea or specific urethritis is as directly caused by the gonococcus Neisser as is tuberculosis by the bacillus tuberculosis.

With this knowledge and a case of urethritis before us, its specific nature can always be determined by the demonstration of the gonococcus. The existence of diplococci properly grouped in or on the cell is not sufficient in doubtful cases. The Gram method of decolorizing should be used to settle all doubt.

In almost all the cases of which I shall make mention in this article the Gram test has been used. It must be patent to all who have had much to do with gonorrheal cases that early youth is much more susceptible to the gonococcus than is maturer age.

This is the more striking, inasmuch as gonorrhea is more often seen among the better classes in boys between the ages of sixteen and twenty than in men between the ages of twenty and thirty, although I am satisfied that the former have intercourse less frequently than the latter. Nor do I think that they are less select in their choice of women than are the older men. On the contrary, the fear of gonorrhea in boys between these ages is as a rule greater than what exists in the more mature, and this of itself makes them rather more careful. I believe the urethræ of the adolescent are better culture beds for the gonococcus than is that of the more mature, and many cases come to my notice where a youth and a man over thirty have had connection with the same woman, and the former alone contracts the disease.

I believe also that a single case of gonorrhea gives to the recipient a certain immunity which renders him less liable to gonorrhea than he would otherwise have been.

Comparatively few who are supposed to have had several cases of gonorrhea have in reality had more than one. We know that gonorrhea can lie quiescent, giving rise to no subjective but slight objective symptoms if the microscope be not used, and yet irritant injections (see Finger) will cause a secretion in which the gonococci in large numbers may be found.

I have seen a number of cases such as this. I am satisfied that a man of mature age, who has had gonorrhea of which he is absolutely cured, enjoys a comparative immunity which enables him to escape gonorrheal infection to which a younger man or one who has never had gonorrhea would readily succumb.

Mr. X, aged forty-five, has been closely observed by me for four years at short intervals. He contracted syphilis when I first saw him, and during the first two years developed the usual or more common of the light secondary forms. He had not had gonorrhea for five or six years. Before that he thought he had had several cases. After a sexual abstinence of six weeks he had intercourse with a *puella publica*, from whom another patient had a short time ago contracted his first gonorrhea. On the second day this was followed by an itching burning, slight pouting of the lips of the meatus and a muco-purulent discharge in which was found large numbers of the gonococcus Neisser. A simple injection of a solution of zinc sulph., alum, and carbolic acid was given. On the second day the gonococci were less in number, discharge minimal, subjective symptoms gone; on the third day no gonococci could be found in the very slight secretion which remained; on the fourth day all signs of the urethritis had disappeared and the urine was absolutely clear. In the two months that have elapsed the patient, a temperate man in every respect, has had intercourse several times and with no pathological symptoms.

This case proves to me that the gonococci obtained in this intercourse found the urethral soil unsuitable for their development. In other words, Mr. X enjoyed a certain degree of immunity against gonococci, which was not the case with the unfortunate patient who preceded him. His age and his former gonorrhea rendered him immune; the gonococcus found no fruitful soil in his urethra.

A patient from a neighboring large town tells me the following: He, a man of thirty-eight, had intercourse with a girl of the same place. He had intercourse with her at 8 o'clock of the same evening that one of his friends took her to a ball. This friend, on returning with her at midnight, enjoyed her embraces, and paid for it with his first case of gonorrhea. My informant was a veteran who had been scarred in previous encounters with the disease and in this instance remained free.

More recently the following has proved of interest to me: Mrs. M. is what might be called a prostitute. She has been my patient for four years. I believe she tells me the truth. As far as subjective symptoms are concerned she has no gonorrhea. Four years ago both ovaries and tubes were removed for salpingitis. She has two lovers, who share the main expenses, and have each two nights to spend with her *in venere*. She has had, however, irregularly, some half dozen outsiders with whom she has been intimate more or less frequently. Among these were two Englishmen, friends, one about twenty-five years old, the other ten years older.

The latter had had gonorrhea, and did not contract it after several coitions with Mrs. M. The former and younger developed it after a single intercourse; he was my patient, and the case was a specific urethritis, and was his first. Mrs. M. told me of several men who had accused her of giving them the disease, and always ended by saying triumphantly, "I could not have given it to them, because, if I had it, my two 'steadies' would have gotten it." A week ago she came in and rather shamefacedly admitted that one of the "steadies" had just developed it. The other, the older both in point of age and service to her, still remained free and devoted—this one who until now has been with her carnally at least twice a week for two years. He is forty years old, and has "gone all the gaits."

I also desire to go on record with this statement. A woman may contract gonorrhea, with vaginal or urethral inflammation, one or both, and yet never have an uncomfortable sensation. This statement I know may seem rash and surprising, but the following case will prove it in part:

A girl of twenty-one, who indulges in coition occasionally from fancy and not necessity, was referred to me by a physician for a slight skin affection, and on April 24, 1897, she complained of slight itching around the vulva and requested an examination. I found no cause for the itching which she felt at some distance from the vulva—in the fold

of the groin—but I found pus in the urethra, and before you you will find a mount of that pus, stained by Dr. Vernon Robins, and you will see typical gonococci. The girl is quite willing to believe my statement that she has gonorrhea, but insists that she does not now and never did have an uncomfortable sensation referable to that region; she insists that she never had a symptom that we commonly find in such cases. I believed her, and in speaking of this to the physician who referred her to me, he assured me he had known her for years, knew her family, and knew something of her life, and would believe every word she told him. He further said that it might in part explain the mystery attending the origin of a case of gonorrhea in a gentleman of forty-eight whom he treated. The patient had told him that his gonorrhea must come from one of three women with whom he had had connection, and he had supposed that all three were beyond suspicion. This girl was one of the three. The physician did not know the others.

Those who see much gonorrhea in dispensaries will bear me out in saying that 75 per cent of the cases treated occur in men under twenty-five years. No such ratio exists with syphilis and chancroids.

In conclusion I will maintain:

1. A previous cured case of gonorrhea gives a certain amount of immunity to a patient.
2. That the older the man, the less his liability to gonorrhea.
3. That after the age of thirty a man who has had gonorrhea may in many cases have sexual connection with safety with women who would be certain to communicate it to younger men, and men whose urethræ have not been rendered to some degree immune by previous gonorrhea.

LOUISVILLE.

IMMORALITY IN THE BICYCLE.—Dr. John Hunter, of Toronto, Canada, writes to the New York Medical Record: The facts are that lady bicyclists sit erect and ride very gracefully, and that the use of the bicycle has the slightest tendency injuriously to affect morals by sensuous erethisms or orgasms is most conclusively refuted by the fact that an ever-increasing number of clergymen's, teachers', and physicians' wives are riding them, and allowing their daughters to do so. The consensus of medical opinion as recently obtained by a reporter for one of our dailies is that, barring those suffering from certain diseased conditions, bicycling furnishes for women especially a useful, healthy, invigorating, and very enjoyable recreation.

Reports of Societies.

THE CINCINNATI OBSTETRICAL SOCIETY.

Stated Meeting, November 18, 1896.

Dr. Robert W. Stewart read a paper entitled Occipito-Dextro Position of the Fetal Head. [See p. 367.]

DISCUSSION.

Dr. C. D. Palmer: How about the increased chance of the child to live or die by this procedure?

Dr. Stewart: Well, I have not had any deaths in the hundred cases I mentioned. If you use an ordinary pair of forceps, you are just as apt to lacerate with them as with these. The great advantage I claim is in making the traction at the same time you use the forceps.

Dr. Thad. A. Reamy: As I understand, doctor, you do not use these as axis-traction forceps.

Dr. Stewart: The pulling in the axis of the pelvis is not so much the advantage of the axis-traction forceps as the tendency to increase the flexion of the head.

Dr. Reamy: You see, what I wanted to get into my mind was, in what axis does the head turn? The sinciput of course is expected to ascend on the anterior inclined plane on the other side, but how far back could you get on the occiput for your traction so as to find on what axis the rotation of the sinciput would occur?

Dr. Stewart: If you have very great extension, that, I think, would be true; but where you have very great extension by getting the instrument further over the occiput it is clear to me that by pulling directly downward you can sweep the occiput over that arc.

Dr. Reamy: If the sinciput does not ascend, the occiput can not descend.

Dr. Stewart: If you can not bring it down, I do not believe you can do any thing. I do not believe that this will cure every case, and that we will not have any more difficulty. It is simply a question whether you will apply the ordinary forceps or the axis-traction forceps. I think by using the axis-traction forceps you tend to bring the occiput

down upon the floor of the pelvis, and then it will rotate as it would under ordinary circumstances, and the instrument will rotate with it. But I take the instrument off before it rotates. Reynolds has recommended putting the instrument on backward, but in doing that you are almost certain to tear the soft parts. It depends on what instruments you use, and how you use them. The most extensive paper on the subject was written by Ethridge, of Chicago, and read about fifteen years ago.

Dr. Reamy: I have been very much interested in the paper of Dr. Stewart, which is able and shows care in its preparation. The principles enunciated are largely commendable.

I would call attention, however, to two or three facts. First, in not to exceed two and a half per cent of all these cases will anterior rotation fail to occur spontaneously, and especially if aided by external manipulation. When you consider that all but two and a half per cent of these cases will rotate by the normal powers, you must stand in indescribable admiration of the resources of nature to accomplish a favorable end in that which otherwise would be hazardous both to the child and mother. It becomes a question—the woman rendered comparatively free from pain by an anesthetic, used within the line of perfect safety—whether it is a better plan to allow nature to have her way and accomplish the rotation, or whether you are to ignore the measures by which nature accomplishes these results and employ active interference. Every one knows that the descent of the occiput and the ascent of the sinciput involve mechanical principles by which nature accomplishes rotation. The head can not descend in these cases unless rotation does occur, and yet it is the descent which carries forward the rotation; and rotation does not occur until the presenting part has reached the pelvic floor. So, while the doctor's statement is true, that pure antisepsis and asepsis can be practiced and the skillful practitioner can carry his arm and hand into the uterus, and while it is true that the rectification of these positions can be facilitated by the proper use of the forceps, it still becomes a question whether this is the safer plan and whether it is justifiable in all cases. I have no doubt of Dr. Stewart's ability to deal with these cases just as described. His experience proves it. Still, that does not remove the objection. Some of these cases change position spontaneously before the head enters the brim. Certainly, changing the woman's position, using external manipulation as he has indicated, is proper, and one of the advanced methods of modern obstetrics. In all cases, pain continuing, and

neither advance nor rotation progressing, the head having engaged, impaction may be assumed. But fortunately, under an anesthetic, before impaction has occurred, but just at its verge, the hand can be introduced and the changes described by the essayist this evening procured, or the forceps may be used, just as the physician's skill may indicate. In this I include the use of the forceps for correcting position.

I have in three or four cases taken forceps with a very moderate curve, of comparatively small size, not axis-traction forceps, and have reversed the blades and applied them so as to make traction upon the occiput, at the same time elevating with the fingers or the unemployed hand the sinciput, and have thus secured most admirable results. I would not attempt this where the head is impacted. This procedure requires facility in the use of instruments and a good conception of the construction of the pelvis, and of the relations of the head to it at each step of descent and rotation. This method of forceps application is condemned. But with a properly constructed instrument, carefully adjusted, firmly grasped in but one hand, and with only gentle traction, the process is perfectly safe both for mother and child.

An important element of safety for the child is the absence of pressure by the instruments over the superficial and deeper vessels and nerves at the base.

Dr. W. H. Taylor: I thought, while I was listening to the paper, that there was to be nothing to discuss but to commend the paper. The point at which we began to diverge was in the author's statements as to the use of the instruments. The essayist certainly does not represent the use of the instrument as it is intended the axis-traction forceps is to be used, and I can not see any particular advantage in applying the axis-traction forceps in the way he describes, because I think he makes statements that are not mechanically true. I do not believe that we can make the movements that he says he intends to make. In seizing the front handles of the instrument and manipulating with them he violates the first and important rule in regard to the use of axis-traction forceps.

I agree with Dr. Reamy, that almost all of these cases of occipito-posterior positions will ultimately rotate without artificial aid. Once in a while, of course, they do not, and then I agree with him as to his purpose, that of endeavoring to bring down the occiput, increasing the flexion; but, as I said, I do not think he does it as he says he does it. It is my opinion that a single blade of the forceps put behind the

occiput, and used as the old-fashioned vectis, would be the best means of correcting these cases ; but, unfortunately, we do not carry the vectis with us as a rule. Burns, who ten or fifteen years ago was recognized as the best writer upon operative obstetrics in England, says simply to make traction and let nature make the turns. I believe that is the best practice. Simply place the forceps far back on the head and make traction, and then rotation will take place.

Dr. Bryan Stanton : Would there be any advantage over other forceps in that ?

Dr. Taylor : No ; I do not think there would. You all will remember that when the axis-traction forceps was first introduced it was said it was not an instrument to be used low down in the pelvis, but only high up. I do not think experience has shown that to be true ; I think we can use them low down, and that is where they would generally be used in cases of this kind. Using the traction as intended with the instrument would be a good thing, but that is not the way the essayist suggests to use them.

Dr. Giles Mitchell : I desire to commend the essayist ; I agree with him in the main. My experience with occipito-posterior positions has been that the cases in which rotation forward does not occur are delivered with about the same facility as though the position of the head were either the first or second. In most of these cases we have a very ample pelvis or very small head, or both, and that is the reason rotation does not occur. The largest child that I ever saw delivered alive was a case at which I presided some thirteen or fourteen years ago ; the child weighed thirteen and a half pounds. It was delivered in this position without laceration of the perineum, and was delivered by nature unassisted.

Dr. Palmer : Did anterior or posterior rotation take place ?

Dr. Mitchell : The head did not rotate forward. Dr. Reamy remembers the case very well ; he had delivered the woman two years before. Dr. Reamy was engaged to preside at this delivery and came afterward, and he would hardly credit my statements.

I am satisfied these cases are much more frequent than they are recognized, and anterior rotation takes place in almost all of them ; and in those in which rotation does not take place delivery is accomplished usually without much difficulty. It is for this reason that interference should be avoided until the head becomes impacted. My preference in the use of instruments would be an almost straight forceps. I fail to

appreciate the advantage suggested by one of the speakers in introducing the blades upside down.

Dr. H. O. Probst: This subject is rather out of my line; I am engaged not so much in bringing people into this world as in keeping them in it.

I presume you are acquainted with the articles in a recent number of the British Medical Journal giving experiments upon attempting to disinfect the hands. The experimenter used various methods, first the carbolic-acid solution, after scrubbing with soap and water; then by using alcohol and solutions of bichloride of mercury of various strengths, and after scrubbing for an hour he failed to get the hands sterilized. I do not want to say how much danger there would be of getting pathogenic germs from the vagina into the uterus, but it is not so easy to get the hands aseptic, I think, as the author seems to consider.

Dr. G. E. Goode: Dr. Mendenhall, my teacher of obstetrics—and Dr. Taylor will remember how he used to lecture upon this subject—used to tell us these cases nearly always rotated anteriorly. I was going to say I had never had a very great amount of experience along this line. I have had some cases, and some of them were difficult. As you probably know, we sometimes make mistakes in diagnosis. I was connected with a case recently. In that case a very good practitioner made a mistake in diagnosis; he thought he had a first position of the head when it was a fourth. He had applied the forceps with a view to delivering a child in the first position. With all his efforts the head finally rotated anteriorly. Nature, as Dr. Reamy said, is a wonderful worker. Many years ago I remember reading an article by a prominent man who recommended very highly the vectis. Dr. Taylor says we do not carry that instrument, but I have a vectis and I carry it when I take my instruments along. That gentleman recommended the use of the vectis with the use of the finger upon the forehead, pushing it up. His idea was that when there was a pain we should follow the pain with the vectis and maintain the position of the head and not let it go back. Some women recognize the movement of the head, and it is very discouraging to have it go back almost as much after a pain as it was forced forward by the pain. I think I have attained a very considerable amount of success in the use of the vectis, and I am still using it too. My idea is to maintain what is gained. I was very much interested in Dr. Stewart's paper. It comes home to everyday life, for we want to get these cases through as nicely as possible.

Dr. Stanton: I agree with these gentlemen that these cases nearly always rotate, but the question is what we are to do when they do not rotate. I do not agree, however, with Dr. Mitchell, that these cases are not of so much importance. I believe they are very serious cases when rotation does not take place. In regard to the use of forceps, I have never had much success in remedying the position by their use. I have in some cases succeeded, when the case was taken early, by performing internal rotation. I believe this is a procedure to which sufficient attention has not been paid. In many cases it can be done with the woman profoundly anesthetized. Where this can not be accomplished, I believe that with the hand unaided by instruments, or the vectis and the hand, much more can be accomplished than by the application of forceps.

Dr. Palmer: I have spoken upon this subject twice in recent years. Some four or five years ago I wrote a paper on this very subject, and presented it to the American Gynecological Society; and I discussed this subject in recent months, when a paper was presented to the Academy of Medicine by my friend Dr. Zinke. I have now pretty much the same ideas I had then, and I can but repeat what I then said, and lay a great deal of force upon what I think is the mechanism of labor in these cases. The paper of Dr. Stewart is an excellent one. It throws a great deal of light upon certain points; but I fail to comprehend how he is going to facilitate labor in these cases, although his principle of helping flexion is correct. The main point I wish to speak of to-night has reference to the mechanism of labor. I believe Hodge's "Obstetrics" is to-day the best book on the mechanism of labor in the English language. I can not get over the impression which that book made on my mind when I read and studied it years since, and I think no author, not even Leishman, or Playfair, can equal the elucidation of the mechanism of labor by Hugh L. Hodge.

I think Hodge is correct when he says that the anterior inclined plane of either side, right or left, is all inside of the pelvis, from the symphysis pubis running back to a line nearly to the sacro-iliac synchondrosis. Hodge says the line dividing the planes anterior and posterior is three fourths of an inch in front of the sacro-iliac synchondrosis. When a round body like a fetal head is propelled against the anterior inclined planes by the action of the uterus and the accessory powers, this round body will naturally move downwardly, inwardly, forwardly, and outwardly. But when this round body strikes posterior to

that dividing line the movement of that round body will be downwardly, inwardly, and backwardly. That is the rule, to which there are exceptions only owing to the construction of the pelvis together with some shapes of the head. But the exceptions are rare. A great many of what appear to be occipito-posterior positions are really not so, but occipito-anterior positions. An occipito-posterior position is one only in which the occiput impinges upon the posterior inclined plane. So an occipito-posterior position is not one necessarily in which the occiput points posteriorly, but one in which the occiput is posterior to the sacro-iliac synchondrosis. A great many cases of supposed occipito-posterior positions are seeming but not actual. In an occipito-posterior position the occiput may look posteriorly, but anterior it is to the sacro-iliac symphysis. This is the reason so many cases supposed to be posterior are seeming and not real.

Of course, when this condition is recognized, the proper thing to do is to change it, if practicable, before the head descends into the pelvic cavity. It is prudent often, in order to save the life of the child and the soft structures of the mother, to perform podalic version, which is not dangerous or difficult. You can oftentimes, however, before the head enters the pelvic cavity, change the position, and rotate the occiput and whole fetus so that it becomes anterior to the sacro-iliac synchondrosis. If the head is inside of the pelvic cavity the thing to do is to use the vectis. Putting that instrument posterior and to the mother's left, and with the fingers anterior and to the mother's right, press upon the left temple of the child (the position of the child being right occipito-posterior, by far most common), thereby facilitating anterior rotation. In that way you also aid flexion. If the head has come down to the pelvic floor, put the forceps on in relation to the pelvis; and if, as you make traction, you find the head is rotating, remove the forceps and reapply them. Do not let the forceps unchanged rotate more than one fourth of a circle; better, not more than one eighth of a circle. I believe properly constructed forceps will permit the head to rotate within the blades.

Dr. Reamy: It wouldn't do that with any forceps except Hodge's.

Dr. Palmer: I believe any forceps, with long narrow blades, after the Bandelocque or Nægeli pattern, if properly constructed, with a double cephalic curve, as has Hodge's, and if the handles are not too severely squeezed together when traction is made, will allow normal rotation of the fetal head to take place between their blades.

Dr. Magnus A. Tate: I would like to ask Dr. Stewart as to just when he would use the forceps and when he would turn. Nearly everybody tries the postural positions first. But does the doctor try immediately to turn, or, after the head has passed down a little, would he wait for version to take place through the efforts of nature, or would he apply the forceps?

Dr. Edwin Ricketts: I simply want to put upon record the weight of a child, in connection with the case spoken of by Dr. Mitchell this evening. A child, male, weighed by myself with a pair of common steelyards, tied up in an ordinary diaper without any thing else, weighed a little over fourteen and three-quarter pounds.

Dr. Palmer: Troy weight?

Dr. A. W. Johnstone: I came to learn to-night; I have never pretended to be an obstetrician. First, however, I wish to back up Dr. Mitchell's statement. The first case of occipito-posterior position I ever saw was born in that position. I think the reason was that it was a small child. But Goodell put me on to a method by which I have saved about a dozen cases. It is very similar to what the essayist has described to us to-night, except there is no traction connected with it. I remember one year I had six cases, all in consultation, and only one of these was in my own private practice, so how long they had lasted I do not know. The method is simply to introduce the hand and never stop until you get hold of the back of the neck. Most of these cases were ones in which the forceps had already been tried. I apply the forceps in the correct line as far as the mother is concerned, and then without any traction I first swing them one way and then the other, to see which way they will go the easiest. Then take the forceps off, apply them correctly and deliver. Whose method that is I do not know, but it works very satisfactorily; and if it had not been for this method at least one woman in this city I know would have died. Two of my young friends on the hill were worn out with a large German woman. On examination I found one half of the pelvis blocked by a cellular swelling. It was an occipito-posterior position. I had to introduce my arm almost to the elbow to get hold of the child. The child was dead when I got there; the funis was down and pulseless, and had been for two or three hours.

Dr. Reamy: The advantage of applying the forceps reversed is that then you are not so likely to kill the child by compression of the base of the brain and the large vessels of the neck. In the ordinary way of

applying the forceps there is danger of compressing the head and neck and doing damage to the child.

Dr. W. D. Porter: Can the forceps be applied in that position, unless the head is very low down?

Dr. Reamy: With a slight curve you can, by carrying the handles of the forceps well back, apply it with the head anywhere within the pelvic excavation in a normal pelvis, and in a large per cent of these pelves there is amplitude.

Dr. Stewart: I am very much obliged to you for discussing my paper. I am very sorry some things I have said seem to have been misunderstood. First, I think we can shorten labor by early manipulation. We should not wait until impaction occurs. We should watch these things so as to be sure flexion is maintained, so that labor will be as easy as possible.

Dr. Reamy: I would like to inquire if there is not considerable danger, even if the manipulation is made early, of producing extension unless you keep the hand up there?

Dr. Stewart? The paper stated very clearly, I think, that before the head entered the brim the only procedure justifiable was to make abdominal manipulation. I said distinctly, I am sure, that I would not interfere in any way until I was satisfied extension had begun. I gave the methods by which I would be guided in telling when flexion had begun. I tried then to show that manual manipulation carried on essentially by inserting the hand and pushing the sinciput upward and backward was all that was justifiable, and only afterward should instruments be used. The great principle that underlies rotation is not only the inclined plane, as Dr. Palmer has said Hodge tells us—and I have gotten much from Hodge—but it is also the pelvic floor. As long as flexion is maintained we may expect anterior rotation to take place. When we see a case early all we should do is to see that flexion is maintained. But given a woman with a perineum torn, in which there is not this resistance to the advancing head, and rotation will not take place under ordinary circumstances; and if the head be so large it will not pass down in the flexed condition, or if extension takes place it can not pass down in an extended position, then impaction is apt to occur and we are justified in using instruments. Penrose has written a very excellent article upon the use of the vectis. His idea in regard to the vectis is not that it makes traction upon the occiput, but that it supplies a false pelvic floor upon which the head can rotate. I think

in that way it is a very valuable thing. If flexion can be increased and the dorsum of the child be brought forward, isn't it rational to suppose that the head will descend into the pelvis and rotate, even on a relaxed pelvic floor, without any instrument at all? It is the "two and one half per cent of cases" I am trying to talk about.

I have been greatly misunderstood about the use of the instruments. I do not claim I make rotation with the instruments. I do not know who first recommended the rotation of the head in the pelvis with the instrument, but that procedure is condemned on almost all sides. It is not justifiable unless every other means fails. What I did say was this, that when the instruments were applied, by carrying the handles forward you tend to depress the occiput and favor flexion. We increase that flexion by making what is practically axis traction, by pulling upon the lever. The object is really not only to increase flexion, but to bring the head down upon the pelvic floor, when it will rotate in the majority of cases. The instruments should be taken off before the rotation is complete. The objection I have to the application of the forceps in the reversed position (and it is theoretical objection, for I have never used the forceps reversed in this position,) is that the forceps may tear the soft parts of the mother.

Dr. Reamy: Don't pull that hard.

Dr. Stewart: In the easier cases you have to do but little; in the harder cases you have to do a good deal. The cases that do not rotate spontaneously are the most difficult cases we have. Dr. Palmer will remember helping me with my first occipito-posterior position. In that case the head was already impacted. If any man wants to go through with the delivery of a large head in a comparatively small pelvis, with the occiput crowded down into the sacral cavity, I do not want to be with him. You can not turn the head there. Those are the cases in which the dorsum of the child lies over the spine of the woman from the beginning, and you can not rotate them.

Dr. Tate: Then what would you do?

Dr. Stewart: The only thing you can do is to apply the forceps to the sides of the pelvis and pull. Then, by elevating the forceps, you may make the whole occiput sweep over the space of some eleven inches, but usually it does not sweep.

Dr. Reamy: Don't you sometimes get the chin out from under the symphysis pubis?

Dr. Stewart: Oh, yes; in one case I did that. That is easy when the pelvis is ample.

Reviews and Bibliography.

Inebriety : Its Source, Prevention, and Cure. By CHARLES FOLLEN PALMER. 109 pages. Price, 50 cents. New York, Chicago, Toronto: Fleming H. Revell Company. 1897.

We do not remember to have seen a work on this subject written more in a spirit of fairness, with more of modesty and more of philosophy, than this. Most works of this class are written either by "bigots whose bold miscoloring of facts and unfounded assumptions excite the contempt of the thoughtful, or by persons interested in some nostrum or sapitarium and whose statements have to be ruinously discounted."

We may not agree with all that this writer says, but any one who has sought an insight into the mainsprings of human action must agree that the moral and mental questions relating to the development of the strength that refrains from or recovers from inebriety are most wisely treated. We might say, in something of the spirit of this author, that it is hard to tell which has made more drunkards, slaves of opium, and prostitutes, the weakness of the victims or the frowns of the self-righteous and hypocrites.

The third and fourth chapters of the work, "The Remedying of the Inebriate Morbid Conditions and the Strengthening of the Bases of Self-control," "The Inebriate's Continued Progress in Building up Moral Manhood," should be in the hands of every parent and every one having to do with the formation of character.

D. T. S.

Diseases of the Eye and Ophthalmoscopy. A Hand-book for Physicians and Students. By Dr. A. EUGENE FICK, of the University of Zürich. Authorized translation by ALBERT B. HALE, A. B.; M. D., Ophthalmic Surgeon to the United Hebrew Charities, Consulting Ophthalmic Surgeon to Charity Hospital, Chicago, etc. 488 pp. One hundred and fifty-eight plates, some colored, illustrating the text. Price, \$4.50. Philadelphia: P. Blakiston, Son & Co.

While we hardly see the necessity of a new work on Ophthalmology, a subject well supplied with efficient text-books, we can but express the highest regard for the manner in which the author has presented the subject in his publication.

In the first part of the book, which is devoted to the general methods of examination, he refers to the different parts of the eye and the various functions as they should be under normal conditions. He has made a division into the functional tests, including vision, refraction, accommodation, light and color perception, movement of the eye, etc., and the objective method of examination, including keratotomy, focal illumination, the ophthalmoscope and measurement of tension. Among the instruments for determining the tension of the eye the author describes an apparatus devised by

himself whose mechanism is based upon the pressure of a spring against the sclera which registers the tension.

The arrangement of the special part of the book does not differ much from other works. The text, though not voluminous, embodies in it all information necessary for the practicing ophthalmologist. The diseases of the different tunics of the eye are treated of in a clear and concise way.

The same is true of the disturbances in the movements of the eyes. The double images in "paralytic squint" are illustrated, which lends much to the understanding of this difficult chapter. The translator deserves especial mention for the smooth manner of his writing. He has added some valuable points in the chapter on Heterophoria, a subject which German authors are wont to neglect.

On the whole the book deserves a place among the best works on ophthalmology. The plates, which are mostly copied from other publications, are excellent, though not exactly true in color. The publishers have gotten the work out in the tasteful style which characterizes their publications.

A. O. P.

Artificial Anesthesia. A Manual of Anesthetic Agents and their Employment in the Treatment of Disease. By LAWRENCE TURNBULL, M. D., Ph. G., Aural Surgeon to the Jefferson Medical College Hospital, Philadelphia, etc. Fourth edition, revised and enlarged. With illustrations. 550 pp. Price, \$2.50. Philadelphia: P. Blakiston, Son & Co. 1896.

With this, the fourth edition of the author's Manual of Anesthetics, he has endeavored to bring the whole subject of artificial anesthesia and anesthetics up to the present time, being careful to obtain all the most notable discoveries of the last six years. He has occupied a position peculiarly favorable to the accomplishment of his task, and that he has done it well must be the universal verdict.

We are here given a history of every known anesthetic, its discovery, its limitations, mode of administration, its dangers, and the means of those who have partially succumbed to their injurious effects. He fairly divides and proportions the credit of the discovery and introduction of anesthesia, contends for ether as the chief of anesthetics, and concludes his work with a chapter on the legal responsibility of the physician in administering anesthetics. It is a most interesting book as well as a most excellent one.

D. T. S.

Lectures on Renal and Urinary Diseases. By ROBERT SAUNDEY, M. D. (Edin.), Fellow of the Royal College of Physicians, London; Emeritus Senior President of the Royal Medical Society, etc. With numerous illustrations. Second edition. 434 pp. Philadelphia: W. B. Saunders. 1897.

While there are treatises on renal and urinary diseases more smoothly and flowingly written and more readable than this, there is none that evidences greater learning and a larger amount of painstaking, persevering labor. After an anatomical introduction follows a chapter on the pathology

of albuminuria, in which occurs an interesting discussion of the philosophy of cardiac hypertrophy and arterial degeneration found nearly always associated with that condition.

A number of able, ingenious thinkers have entered the lists, and the discussion is one of the most interesting afforded by any of the moot points in medicine. The references woven into the text in great numbers show that the extent of the author's reading and his high standing and his presentation of the subject supply all the guarantee needed that the work is thoroughly abreast of the most mature knowledge and best thoughts of the period.

D. T. S.

A Manual of the Practice of Medicine, Prepared Especially for Students. By A. A. STEVENS, A. M., M. D., Lecturer on Terminology and Instructor in Physiology and Instructor in Physical Diagnosis in the University of Pennsylvania, etc. Fourth edition, revised and enlarged. Illustrated. Price, \$2.50. Philadelphia: W. B. Saunders. 1896.

This work is intended by its author to serve as an outline of practice of medicine, which shall be enlarged upon by diligent attendance upon lectures and critical observation at the bedside. It really answers the purpose of the elaborate quiz compends, and must serve a good purpose to be quickly run over to revive the knowledge that grows dim in any mind unless from time to time reinforced or revived in some suggestive way. Such a work as this must answer excellently for this purpose both for physician and student.

Elementary Bandaging and Surgical Dressing, with Directions Concerning the Immediate Treatment of Cases of Emergency. For the Use of Dressers and Nurses. By WALTER PYE, F. R. C. S., Late Surgeon to St. Mary's Hospital. Revised and in part written by G. BELLINGHAM SMITH, F. R. C. S., Surgical Register, Guy's Hospital. Seventh edition. 218 pp. Price, 75 cents. Philadelphia: W. B. Saunders. 1897.

"This little book is chiefly a reissue of those portions of Surgical Handicraft which deal with bandaging, splinting, etc., and of those which treat of the management in the first instances of the cases of emergency, only such new matter being added as is required to give some sort of continuity to the extracts," is the unpretentious introduction to the preface of a very excellent little work.

D. T. S.

Injuries and Diseases of the Ear. By MACLEOD YEARSLEY, F. R. C. S., Fellow of British Laryngological, Rhinological, and Otological Association, etc. Published by the Rebman Publishing Company. London.

This brochure of forty pages contains six reprints of articles previously published by the author in different journals. On the whole the publication brings nothing new. The chapter on The Care of the Ear in Children is commendable for its treatment of a subject little emphasized in text-books on ear diseases. The little work is exceptionally neat in its get-up.

A. O. P.

Abstracts and Selections.

ENDOTHELIOMA OF THE CERVIX UTERI.—Braetz (*Archiv f. Gynak.*, vol. liii, Part 2, 1896,) puts on record the second case of endothelioma of the cervix uteri, the first having been reported by Amann in 1892. The patient was an unmarried girl, aged eighteen, who had suffered from leucorrhea for about six months. From the posterior lip of the cervix projected a small papillary tumor, which bled easily and was friable. The anterior lip was normal, the uterus was small and movable, and the ligaments were not infiltrated. Total vaginal extirpation of the uterus and adnexa was performed; as the vagina was narrow, the perineum had previously been split in order to facilitate the operation. All the parts removed appeared normal save the cervix, to which was attached a growth which could not microscopically be distinguished from the ordinary papillary carcinoma. The patient recovered and went out of hospital, but died some three or four weeks later, and was buried without a *post-mortem* examination, so that the question of metastases could not be settled. Microscopically the cervical glands were unaffected, but in their neighborhood were cords of cells generally showing a lumen. The cells had large nuclei, and while in the narrow columns they were spindle-shaped, in the larger ones they were more or less spherical. Between these cells were seen leucocytes. The growth was therefore an endothelioma, and, for reasons which seemed sufficient, Braetz traced its origin from the endothelium of the lymphatics of the cervix uteri—endothelioma lymphaticum.—*British Medical Journal*.

THE LIMITS OF VAGINAL AS COMPARED WITH ABDOMINAL EXPLORATORY SECTION.—Dr. Henry C. Coe (New York Polyclinic, June, 1896,) gives the conditions which lead him to select the abdominal method of explorations: "(1) In the case of neoplasms or obscure enlargements which are situated in the abdominal cavity, or have risen above the pelvic brim, especially if they are more or less adherent. (2) In ascites of doubtful origin, more particularly when tuberculous or malignant disease is suspected. (3) In cases of disease of the adnexa in which the latter are situated near or above the pelvic brim, as established by bi-manual palpation. (4) In cases in which the history and symptoms point to general intestinal adhesions, and, above all, when appendical complications are suspected. (5) In ectopic gestation before rupture, when the sac is high up, at the side or in front of the uterus, instead of in Douglas' pouch. (6) In cases of intractable pelvic and abdominal pain of obscure origin, including the so-called neuroses. On the other hand explorative vaginal section should be preferred: (1) In all cases in which the presence of pus within the

pelvis is suspected, as in pyosalpinx, pelvic abscess proper, suppurating dermoids and cysto-adenomata, and hematocele. (2) In the case of small intrapelvic tumors situated in the pouch of Douglas, or at least readily accessible from below. Impacted ovarian cysts, dermoids, and fibroids belong to this category. (3) Adherent adnexa situated in the true pelvis. (4) Unruptured ectopic sacs in the same locality. (5) Circumscribed exudates and indurations in the broad ligaments or behind the uterus, especially when associated with displacement and fixation of the latter organ."

UNCONTROLLABLE VOMITING IN PREGNANCY CONTINUING AFTER THE DEATH OF THE FETUS.—J. Fabre (*Marseille Méd.*, August, 1896,) notes a case of uncontrollable vomiting in a primipara, eighteen years of age, who had previously suffered from anemia and hysteria. The vomiting began at the fifth month of pregnancy, and had continued up to eight and a half months, with increasing weakness. The fetal heart was not to be heard, yet the vomiting continued, and medicinal means were of no avail; it was therefore decided to induce premature labor, and Krause's method (introduction of a bougie into the uterus) was employed. On the day before this was done the patient was so weak as to require injections of caffein and ether, and of 200 g. of artificial serum into the subcutaneous tissue of the abdomen. Twelve hours after the introduction of the bougie into the uterus a dead female fetus was delivered by means of forceps. The vomiting still continued, and the patient died twelve hours later. The only lesions found at the necropsy were those of recent gastritis. The case is interesting, for the death of the fetus was not followed by a cessation of the vomiting, a circumstance probably due to the fact that here pregnancy was not the sole factor, but had superadded to it the pathological state of the stomach.—*British Medical Journal*.

CAUSES OF RETRODISPLACEMENTS OF THE UTERUS.—Hunter Robb (*Columbus Med. Journal*, September 29, 1896,) is of opinion that the mechanism bringing about retroversion of the uterus is very complicated. There are congenital defects, such as an abnormally long cervix or an unnaturally short vagina, distension of the bladder, impaction of feces in the rectum extending up above the ampulla, imperfection of the pelvic floor, inflammatory changes in the uterine supports, and (most frequently) relaxation of the vaginal outlet. These causes may all be found in operation, intensifying and keeping up each other, and so forming a vicious circle. In the presence of any one of them a weak point is produced upon which intra-abdominal pressure acts, and so leads in the long run to retroversion or retroflexion. In treatment, therefore, it is not sufficient to replace a uterus, for the tonicity of the tissues has been lost.—*Ibid*.

THE AMERICAN PRACTITIONER AND NEWS.

"*NEC TENUI PENNÆ*."

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No. 10.

D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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THE STATE SOCIETY.

Since our last issue the forty-second annual meeting of the Kentucky State Medical Society has made its registry upon the archives of Kentucky medicine.

The attendance was unusually large, and the very full and interesting programme was delivered with a completeness that speaks well for the readiness of the Fellows and the executive ability of the officers. The burden of the sessions was good, honest, scientific work, and the social features were worthy of the State, the city, and the cause.

The address of President McChord, which appears elsewhere in this issue, is well conceived, gracefully written, and replete with learning and timely suggestion.

The choice of the presidency fell upon Dr. J. M. Mathews, of Louisville. If honor is to fall where honor is due, the office could not have been better placed. The wonder is that its laurels should have come so tardily to the brows of one so long distinguished for sterling work in surgery, in State medicine, and in medical societies.

The following is the list of officers:

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Topical Discussion—David Barrow, Lexington; William Bailey, Louisville; J. N. McCormack, Bowling Green.

The next meeting will be held in Maysville. It is appointed to begin upon the third Wednesday in May, 1898.

Notes and Queries.

ARTIFICIAL PRODUCTION OF AMYLOID DISEASE AND OF CIRRHOSIS OF THE LIVER.—Krawkow's work on the artificial production of amyloid disease by infecting animals with pyogenic microbes was referred to in the Epitome of June 22, 1895, par. 490. He now records experiments (*Arch. de Méd. Expér.*, 1896, No. 2.) showing that, as well as the amyloid changes, a certain degree of cirrhosis of the liver may likewise be produced by the microbic infection. He injected cultures of staphylococcus aureus into fowls and pigeons. In none of the five pigeons could he produce any amyloid changes, though he succeeded in all the fowls, the amyloid change commencing in the spleen. Krawkow finds that any preliminary treatment of the specimens by alcohol sometimes prevents the proper color reaction with methyl violet. Experiments on the effects of extirpation of the spleen in influencing the development of the amyloid changes have not yet yielded decisive results. The bone marrow of the fowls was very little affected, even when the changes in the other organs had reached an advanced stage. The natural resistance toward amyloid disease varies considerably not only in different species of animals, but even in different animals of the same species. Krawkow was unable to produce amyloid disease in frogs, though as a result of staphylococcus infection varying degrees of hepatic atrophy or necrosis of hepatic cells were observed. The rapidity with which amyloid disease may follow microbic infection in ani-

mals varies considerably, as it does in men. It is recorded that amyloid disease could be made out macroscopically in the organs of a boy, aged seventeen, who died one month after being attacked with osteomyelitis. Amyloid disease has probably often been overlooked in human subjects, because the sections cut for examination have not been fresh. Krawkow failed to produce amyloid disease by introducing the microbes, not into the flesh but into the alimentary canal. By this means, however, he sometimes produced a cirrhotic change in the liver, and apparently even in the spleen and kidneys. Interstitial changes in the livers of animals have been noted by him, with or without accompanying amyloid disease, as a result of chronic infection by staphylococcus aureus, bacillus pyocyaneus, the bacteria of putrefaction, and the cholera vibrio. He has been able to obtain the same hepatic change by prolonged use of a sterilized culture of bacillus pyocyaneus. Krawkow suggests, therefore, that hepatic cirrhosis in human beings may be due sometimes to the absorption of abnormal putrid matters from the intestines. In such cases alcohol may only play the part of producer of the gastro-intestinal catarrh, which leads to the absorption of the abnormal matter. In respect to the rôle of alcohol, Von Kahliden was unable to produce even a commencing hepatic cirrhosis by the use of alcohol in animals, though the kidneys showed hyperemia, hemorrhages, and necrosis of cells. Straus and Blocq, however, succeeded in inducing commencing cirrhosis by alcohol in rabbits. Charrin produced a hepatitis in the liver of a rabbit by injecting the toxins of bacillus pyocyaneus into the portal vein. Krawkow concludes that many cases of hepatic cirrhosis, supposed to be alcoholic, are really due to the action of microbes.—*British Medical Journal*.

POISONING BY PLUMBO-SOLVENT WATER SUPPLIES.—A special report to the local government board of Great Britain, made by Inspector W. H. Power, gives the results of an original investigation concerning the effects of moorland waters in respect of their plumbo-solvent ability. The results go to confirm the microbic theory of lead solution. The investigation is not yet ended, but the chief propositions, as contained in the Glasgow Sanitary Journal, are these: (1) The lead-dissolving property of moorland waters is associated with acidity. Moorland waters that are acid invariably possess ability to dissolve lead. At the same time they may or may not erode this metal. Many moorland waters which dissolve lead to a considerable extent possess in regard to this metal no conspicuous erosive power. Other moorland waters both dissolve and erode lead in a very decided fashion. Moorland peat waters are all, it would seem, not far removed from possession of one or the other property, or of both properties. (2) There was indication also of close relation between amount of acidity and vigor of solvent action on lead. But the correlation does not amount to complete parallelism. Different waters of equal acidity did not necessarily possess equal power of dissolving lead. (3) In certain circumstances moor-

land waters are found to increase in acidity, and therefore in lead-dissolving potency. This is true of waters on peat soil. (4) Peat soil, from various gathering-grounds, was found to be, when moist, invariably acid. (5) When divorced from the peat the moorland waters did not increase in acidity. (6) When "sterile (neutral) peat-essence" was added to freshly collected samples of acid moorland water, the result was bacterial growth and in most cases acid reaction in the peat-essence. (7) When the acid water was added to the peat-essence (sterile and neutral), the result was bacterial growth and in most cases acid reaction in the peat-essence. (8) Thus the water must have contained bacteria that, by acting on some substance in the peat, were capable of increasing the acidity of the mixture. (9) These bacteria are derived from the peat. (10) To separate samples of distilled water that was neutral in its reaction, and which did not dissolve lead, there were added small amounts in each instance of moist peat soil from different selected gathering-grounds. As a result every sample of distilled water developed in a short while acid reaction, and was found to have acquired ability to dissolve lead. (11) To separate samples of sterile peat decoction which did not dissolve lead there were added minute amounts in each instance of moist peat soil from different gathering-grounds. As a result the samples of peat decoction always developed bacterial growth, and at the same time were usually found to possess acid reaction and ability to dissolve lead. (12) Of the microbes discovered in the above peat decoctions only two, named provisionally "O" and "Q," were found to make sterile peat decoction acid, and to confer on it the ability to dissolve lead. (13) Lastly, moist peat soil from a variety of gathering-grounds yielded two microbes identical with "O" and "Q," which, when inoculated into sterile peat decoction, multiplied therein with considerable vigor, produced in the medium acid reaction, and conferred on it ability to dissolve lead. These brilliant results will now be applied to the vast areas selected. The distribution of lead poisoning will be noted and verified. Doubtless many peculiarities, otherwise unexplained, will now fall into their place as natural deductions from the life history of these microbes. And thus, surely a sufficiently startling conclusion, lead poisoning by moorland waters almost leaps into the circle of infectious diseases.—*Medical Record.*

RECURRENT SCARLATINA.—I wish to report a case in which the patient had two distinct attacks of scarlatina, exfoliation of the epidermis occurring after each attack. The patient, a little girl, aged six and one-half years, a foreigner by birth, was taken sick on July 14, 1896. The mother gave a history of vomiting, and explained that the child "felt hot" and was very restless. When I first saw the case, on the third day of the disease, there was a small patch of exudate on both tonsils, fever, and a typical scarlatinous rash. A culture made from the exudate failed to show the presence of the Klebs-Loeffler bacillus, and by the fifth day the temperature, which never was above 101° F., had returned to the normal. The skin began to

exfoliate in good-sized patches, and the child was about ready to be discharged, when on the morning of August 29th, she vomited twice. She was put to bed, and by evening her temperature had gone up to 101° F., and a red punctiform rash was noticed over the clavicles. The next morning a highly characteristic scarlatinous rash was noticed, covering the whole body. There was also a small spot of exudate upon the right tonsil, and a beautiful demonstration of the so-called strawberry tongue. The temperature was normal by the eighth day of the second attack, and she at once started to shed the new coat of skin which she had received shortly before. This last desquamation was much finer in character than the first, and it was not until October 20th that the skin had regained its smooth character. The patient developed no complications, and was discharged on the above date.—*Dr. E. L. Drake, in Medical Review.*

A DOUBLE HYMEN.—A curious case is recorded in the *Comptes Rendus de la Société Médicale de Tambor*, 1895, which concerned a young peasant woman who, accompanied by her husband, presented herself at the consultation of Dr. Olénine, and gave the following history: She had always been in excellent health; began menstruating at the age of fifteen, since which time she had always been regular. During the nine months of her married life coitus had never been satisfactorily accomplished, though frequently attempted, despite extreme pain in the effort. Examination revealed a thickened fleshy hymen with an opening at its upper part. At one or two centimeters beyond this, and situated in the inferior third of the vagina, was a second membrane with a small central orifice. This completely closed the caliber of the vagina, but by a crucial incision of both inner and outer barriers, in the words of the report, the woman was *rendue à la vie conjugale*.—*Medical Record.*

PERITONEAL WOUNDS.—Dr. L. McLane Tiffany (*American Journal of the Medical Sciences*) reports four cases of wounds of the peritoneal cavity, and thinks the following propositions are justified: (1) A penetrating wound of the peritoneal cavity is not accompanied by symptoms commensurate with the extent of the injury. (2) Many fatal lesions may be present, yet give rise to no marked symptoms. (3) Fatal lesions may exist, yet shock be wanting. (4) The wound of entrance should be enlarged, and, if the missile have entered the abdomen, a section is called for. (5) Operation is proper soon after the injury, before the peritoneal membrane has become infected or much blood lost. (6) Flushing the open peritoneal cavity with hot water or hot normal salt solution is an excellent stimulant to the heart. (7) The abdominal wound should be closed when practicable, drainage being provided for.—*Ibid.*

WHAT X-RAYS WILL DO.—A fond mother reported that with their aid a coin which her son had swallowed had been distinctly located in his sarcophagus.

Special Notices.

THE USES OF HYPNOTICS IN NERVOUS PATIENTS.—It is generally admitted that extreme caution is demanded in the employment of hypnotic agents in nervous persons, and in fact it is generally advised that non-medicinal measures should be given a thorough trial before resorting to their administration. So many persons have fallen victims to the morphine habit, or as some term it the morphine disease, that its administration should be restricted to cases of insomnia in which pain constitutes the chief element. There can be no doubt, however, that these baneful effects of opium have inspired a distrust against other hypnotics, and to a certain extent this distrust is well marked. For we know that chloral, formerly the most prominent drug next to morphine as a sleep producer, quite frequently gives rise to habituation. This does not seem to be the case with sulfonal, which has been so extensively employed during the last five years. Sulfonal produces a quiet, restful sleep, and even during its long continued employment the patient does not run the risk of acquiring a habit for the drug. When given in the prescribed manner, that is, in a cupful of hot fluids, it will rarely be found to produce sequelæ. Although the sleeplessness of nervous persons is only one of the symptoms of an existing functional or organic affection which will disappear on removal of the cause, the use of hypnotics, as above said, is frequently required, and among these sulfonal will be found one of the most pleasant and generally useful.

It is my experience that the ideal sedative, the preparation that is the most potent in allaying the restlessness of typhoid fever, pneumonia, and other acute diseases, is that well-known chemically pure preparation, Peacock's Bromides. It is head and shoulders over any mixture of commercial bromides—therefore I use it; it gives the best results. I also find it to be a sterling remedy in the nervousness of rum-drinkers. The restlessness and nervousness attendant in acute diseases can usually be controlled by a few half-teaspoonful doses. It is well worthy of a place in the armamentarium of every physician.

H. C. REEMSNYDER, M. D., Euphrata, Pa.

SANMETTO IN BRIGHT'S DISEASE.—I have been using Sanmetto in my practice for two years or more, and am nearly always well pleased with its effects. Have had splendid success with it in Bright's disease, sometimes using it alone and at other times in connection with digitalis.

H. GREEN, M. D., Shell, Ala.

In dyspepsia and all wasting diseases where there is deranged digestion; I have found Seng of inestimable value.

C. W. ISAMINGER, M. D., Rogers City, Mich.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XXIII.

LOUISVILLE, KY., MAY 29, 1897.

NO. II.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

A CASE OF CEREBRAL UREMIA, WITH CATALEPTOID ATTITUDES.

BY E. J. KEMPF, M. D.

In this article I propose to describe a case of cerebral uremia occurring in a woman in childbed. The case was characterized by a peculiar mental condition, associated with a remarkable change in the tonicity of the muscles akin in many respects to hysterical catalepsy.

Previous History. Mrs. H. S., twenty-nine years of age, 5 feet in height, 120 pounds in weight, married twelve years, is the mother of seven children. She has a sister under treatment for Bright's disease, and her father died of kidney trouble. Mrs. S. had convulsions in her first three confinements. The fourth, fifth, and sixth labors were normal. The seventh confinement is the present one, and will be fully described. About a year ago the patient had an attack of pneumonia accompanied by pleurisy. The patient has been an invalid nearly all her married life, and has been under the treatment of Dr. Coble, of Dubois, Ind., during all of her previous spells of sickness. Therefore I can not give any preliminary details respecting the progress of the kidney affection from which the patient was suffering, and which gave rise to the extraordinary symptoms to which I wish especially to direct attention.

Dr. F. M. Mueller was called by telephone to attend Mrs. S. in her confinement. He related to me that the labor was normal in every way until the os was nearly dilated. The patient had no fever, and no adverse symptoms of any kind, until just as the first stage of labor

was about completed convulsions came on. The bag of waters was ruptured, and the second stage of labor was thus brought on, when the convulsions ceased and labor was thereafter normal. An hour after the placenta had been delivered convulsions reappeared, and lasted for several hours, being finally overcome with hypodermic injections of morphine and inhalations of chloroform. Afterward the patient became quiet, and for several days every thing was normal. On the evening of the fourth day the patient again had convulsions, at least so the messenger said, and I saw the case for the first time.

Present Condition. I shall now describe a group of symptoms which developed during the next two weeks. There was at first nothing very characteristic in the difficulty of breathing the patient was complaining of, but gradually developed until it presented the peculiar rhythm of the dyspnea of Bright's disease, viz., Cheyne-Stokes respiration. The patient seemed anxious, suspicious, cross, and was constantly complaining and moaning night and day, needing constant watching.

She complained of severe pain in the abdomen, but the cause of her constant complaint could not be made out. There was no visceral or pelvic inflammation of any kind. The uterus was neither tender nor abnormally enlarged. The lochia were of the right color, had no smell, and there was no discharge of membranous shreds or clots. There was some inflation of the intestines. The bowels were constipated, but were easily moved with calomel followed by salines. The pulse was forcible and rapid. The heart beat very forcibly with the tendency to reduplication of the first sound. The temperature oscillated on either side of normal, sometimes rising as high as 104° F., at other times falling below 97° F., but on the whole little direct information could be obtained from it, and the rise and fall of temperature were to a large extent independent of the other symptoms. When the temperature was below normal, then generally the patient remained motionless, and when there was fever she tossed about, moaning constantly. At times there were gastric disturbances such as vomiting, belching, etc., disturbances of vision such as double vision and hallucinations, cerebral disturbances such as delirium, visions, delusions, hopelessness, and despondency.

The amount of urine passed daily varied between 16 and 35 ounces, the quantity of albumin between 1 and 1.6 grains per ounce, and the total urea excreted amounted to from 200 to 400 grains in the twenty-four hours. The deposits of the urine also contained epithelial or

hyaline and mucons casts which are characteristic of Bright's disease of the kidney. This examination of the urine was made for me by Dr. F. M. Mueller, an expert in such matters. There was no edema or dropsy.

At times the patient would talk without much effort, answer questions, take nourishment, do what she was told, take notice of her husband and the children and of visitors, and seemed to possess her full consciousness. Then without any premonition the patient would pass into a state of hebetude. She would not stir, and either made no answer or simply muttered a word or two listlessly and in a monotonous voice. She was apparently lost in the contemplation of some distant object, with a dull, vacant expression in her half-closed eyes. On lifting her hand it was noticed that she presented a peculiar rigid condition of the joints, and the arm remained in the position in which it had been held, and did not drop back to the patient's side, but gradually the limb descended by its weight to its place on the bed. A resistance was always experienced in endeavoring to replace the arm on the bed. This rigidity of the limbs—the legs were in the same condition as the arms—is analogous to that which is observed in cases of catalepsy, where the extremities retain their mobility, but where the movements are attended with a certain degree of friction.

In spite of this rigidity of the attitude, and in spite of the delusions, one could readily see that the patient had not lost all consciousness. She was in a state of hebetude from which she could be roused for a few seconds.

When the patient recovered her full consciousness she described some of her impressions and talked about her delusions. It was not, therefore, a case of true catalepsy.

Whether the convulsions she had during and immediately following labor were of a true clonic character I do not know. Dr. Mueller says they were. The convulsions afterward were altogether of a tonic type and of a cataleptoid character.

The cerebral symptoms were evidently of the nature of uremic manifestations, at any rate the presence of uremia gave a clue as to the causation of the stupor, delirium, hallucinations, cataleptoid attitudes, and the at times peculiar mental condition, which resembled puerperal insanity.

The Treatment. Calomel, followed by salines, quinine in tonic doses, tincture digitalis, the bromides, cascara sagrada, and nourishing

diet, vaginal injections of hot carbolized water, hot poultices to the abdomen, mustard plasters to the back and the extremities, and constant attendance without undue sympathy was the treatment instituted.

The patient improved slowly and gained in strength; the cataleptoid condition ceased, the urine improved in quantity and quality, the temperature became normal and remained so, and the patient, though still an invalid, is able to be up and do light housework. She is now under the treatment of Dr. Coble.

Remarks. The cataleptoid condition described in the foregoing case is a phenomenon which is only discovered when it is carefully looked for, and it is only by looking for it that the physician will discover it. The cataleptoid condition in my patient lasted for nearly three weeks, and by constant attendance and observation I finally came to understand the case.

The cataleptoid condition and attitudes as described were but some of the many psychical phenomena associated with uremia. The manifestations observed in any given case depend upon the form assumed by the uremia.

The cerebral phenomena of Bright's disease of the kidney are to be attributed to certain pathological changes due to the retention in the system of effete products, that is to say, of a large variety of toxic substances which are normally excreted by the kidney, but which accumulate in the system in cases of failure of the kidney functions. The poisonous products of tissue metabolism produce in one myosis, in another clonic convulsions, in another give rise to a febrile condition and insane delusions, and in another bring on drowsiness, hallucinations, stupor, and coma.

That the patient whose history I have related has chronic disease of the kidneys, and that the condition of pregnancy aggravates this disease and endangers the patient are facts that lead me to believe that the patient will in the near future suffer another serious and probably fatal attack. The most interesting point in the case is its history: that a patient can have four distinct attacks of puerperal convulsions and continue to live entitles her to a niche in the fame of medical annals.

Another interesting feature of the case is, that the woman first had puerperal convulsions of a clonic form, from which she apparently recovered, and after a few days she went into a cataleptoid condition which lasted nearly three weeks, an apparent recovery following.

Does it not seem plausible to say that this is one of those cases which formerly were classed under the euphonious title of hysteria, but which more and more are being understood as being due to a poisoned condition of the system, brought on by some defect of either the assimilative or the excretory organs?

JASPER, IND.

**PROPRIETARY PREPARATIONS—EVILS TO THE PROFESSION; AN
APPEAL TO THE PROFESSION.***

BY LEON L. SOLOMON, A. B., M. D.

*Assistant in Chemistry, and Clinical Assistant Department of Pediatrics, Kentucky School of Medicine;
Curator, Louisville City Hospital; Lecturer on Materia Medica, Louisville Training
School for Nurses, etc.*

Where are we drifting? Where are we being led? These are questions which suggest themselves to my mind, and no doubt are daily suggesting themselves to the minds of a great many other medical men. We are being overwhelmed with sample specimens of new proprietary and galenical preparations of medicine. Each mail brings us an abundance of literature lauding something new or in support of something old. Representatives multitudinous visit us and furnish us with stocks of samples and of reading matter. What does all this mean? Time was when such was not the case. Is it only an essential concomitant of progressive medicine, and are we thereby serving suffering humanity and curing more diseases than the doctor of a few years ago was able to cure? If the literature thus supplied may be accepted verbatim, and if the labels on the bottles tell the truth, then such is the case, for this literature is almost invariably addressed to the *wide-awake, progressive physician*, and the labels on the bottles not at all rarely read, *specific, cardiac specific, specific in malaria, specific for rheumatism, uterine tonic specific, specific in indigestion*, etc. Testimonials are never wanting to substantiate the statement that the article is really a specific. Physicians galore have tried the remedy, and found it to "accomplish even more than was claimed for it"—they "have found it to act like a charm."

Probably the doctor's "attention was first called to the new preparation by a sample which the agent so kindly left." It happened, maybe, that the doctor's wife was suffering at the time with rheumatism, so he just thought he would try it on her—poor, unsuspecting and unof-

* Read before the Kentucky State Medical Society, May 7, 1897, at their annual meeting in Owensboro, May 5th, 6th, and 7th.

fending doctor's wife! Your path has never been strewn with roses; at best your married life, from the standpoint of pleasure which your busy doctor-husband could afford you, has proven a dismal failure. Is injury now to be added to insult, and does the doctor propose to try the new medicines on you? Surely not. Life is indeed too short if not too sweet. The physician must needs live in Utah and be a disciple of Brigham Young—he must needs have many, many wives to work up a clinical experience for all these various preparations. How often does the single experiment on the one single case constitute the entire clinical observations which the doctor has made, and yet he has the audacity to proclaim to the medical world, through a testimonial which he willingly writes and willingly subscribes to, that this preparation or that preparation is an *absolute specific*. Can it be that the doctor has a hidden interest to protect? Can it be that a disciple of Hippocrates is reducing medicine to so low a plane and prostituting it on a level with common mercantile pursuits? No. Surely not. I am loath to accept any such reason for his action, and prefer rather to accuse him of the lesser crime, that is to say, seeking advertisement and desirous of seeing his name in print. That he gets advertisement there is no doubt. The people with whom he is dealing have no medical ethics to dictate to them.

They are business people—they are in business for the profits which their product will yield them, and the way to the accomplishment of their end is through the instrumentality of printer's ink. An essential feature with all great successes is advertisement. The various manufacturing chemists and pharmacists appreciate this. A printing department constitutes a part of their handsome, large plant. Here are gotten out on the wholesale extravagant reprints and brochures of all sorts. The money which is annually expended in producing this literature must be an enormous amount, but so long as returns justify such expenditure, well and good. I have attempted to shield this producer of testimonials on the small scale, as you see, by saying that he is seeking advertisement, and after all *his* is no great crime as compared to another's which I shall shortly describe. Possibly he is a young man who writes the testimonial—young and inexperienced, with a great deal yet to learn. Judging from his grammar, diction, and very logical reasoning in the testimonial, we are often compelled to think that he has left much untouched and much unlearned in the literary education which should have preceded his medical schooling. But, no matter; we will

excuse him on the plea of ignorance, though this is ordinarily no excuse. His violation of ethics is *his* greatest offense. On the other hand, what excuse can we offer for the writer of testimonials, who has taken the trouble to make a long series of clinical experiments and studies, and extending over a considerable period of time, who finally makes a contribution to some medical journal, extolling the proprietary preparation in question and reciting an abundance of clinical evidence to substantiate his statements, that this especial preparation is a *sine qua non*. Not at all rarely such men's names are too well known to require further advertisement.

How then shall we condone for their action? What motive has moved them to go to all this trouble, and what has been gained, I pray, by the recitation of all these statements? Nine cases out of ten the preparation is nothing new. Nine cases out of ten it is a very simple combination of a number of old and tried remedies which our forefathers long before us had used. An enterprising manufacturing concern have thought wise to make the combination; they have taken such drugs as black haw and pulsatilla, we will say, and by adding thereto various synergists, aromatics, and correctives, have been able to produce a preparation inviting to the eye, acceptable to the palate, and very costly for the patient, and have succeeded in some way or other way in obtaining the services of a medical man or of medical men—in the plural—who are willing to be the means by which this new specific for falling of the womb, dysmenorrhea, amenorrhea, menorrhagia, metrorrhagia, and all other allied and unallied uterine conditions, shall be advertised and safely launched on the profession at large. These are the kind of reports which especially do the cause—large sales—good. These are the reports in journals, which the house who owns the remedy copy in full and send broadcast as *clinical reports* to the mass of physicians in these great United States of ours. These are the reports which the manufacturers then abstract and have inserted for weeks and months and years in various journals and publications, medical and non-medical, and for which they pay at regular advertising rates. This is no small question, my fellow practitioners, it is a momentous question; and I believe that, unless some remedy is suggested and early put into operation, the evil which it will soon accomplish must be unalterable. Think of the large number of patients, whole families and communities, who are treating themselves—oftener mistreating themselves.

Think of the myriads who are taking phenacetine and salol and antipyrine for the relief of the various aches and pains with which they suffer. Getting no relief, they finally come to us, and then, possibly, their "simple rheumatic pain" or "sciatic pain" is shown to be in truth a locomotor ataxia, or other sclerosis with typical gastric crises, girdle sensation, and a whole train of symptoms characteristic of a disease which, of course, the patient is not to be expected to diagnose. Think of the myriads of people who are using Bromidia, and Febriline, and Maltine, and Malt, and Hypophosphites (Fellows' and others), and Celerina, and Sanmetto, and Lactopeptine, and many other preparations which "are advertised to the profession only." There is a reason for this promiscuous taking of proprietary medicines. The patient means to save the price of the doctor's visit; and, as much as the patient knows of medicine, or as little as he knows of disease, can we criticise him for this attempt to save money? The doctor who prescribes such preparations need expect no other treatment at the hands of the patient. "Why pay Dr. Smith or Dr. Jones two dollars for a consultation, when all I need is a tonic? I'll just buy a bottle of Maltine with Cod-liver Oil. Dr. Smith prescribed this for my friend Mrs. Blank, and may be it will do me good also." Do I exaggerate when I say analogous cases to the one pictured above are constantly happening? I want to ask the question anyhow. Is Maltine advertised to the profession only? The following case would disprove this fact. Mrs. G., who was convalescing from influenza and making very slow progress, needed a good tonic and tissue builder. Preparations of malt are among the few proprietary medicines which I ever prescribe, and I determined to give my patient Maltine. Fearful lest the cod-liver oil tax her weak digestion too greatly, a prescription was accordingly written for Maltine with Hypophosphites. The patient took it nicely and expressed herself as being very much pleased with the result, which was at the same time gratifying to me.

Some ten days later I had occasion to call on Mrs. G., and found her taking Maltine with Cod-liver Oil. I asked who had prescribed it, and was told by the patient, who is a very intelligent lady, that she had read the circular which came with the Maltine—descriptive literature, you know—and learned therein that the same house also prepared a Maltine with Cod-liver Oil. They claim, so she said (I have never read the circular), that the cod-liver oil is almost odorless and tasteless, and she determined to try a bottle. In the latter they are mis-

taken, since the preparation tastes and smells after the oil. But my patient took it nevertheless. Now it is very plainly evident to me that Mrs. G. does not need my services again so far as tonic is concerned. She has solved the problem, or rather I have solved it for her, and probably it has also been solved for a host of her friends who may also need tonic treatment sooner or later. Is Maltine then advertised to the profession only? Yes; and a great many others are advertised, in the same way, "to the profession only," containing, however, flaming circulars descriptive of the preparation at hand and a full list of all others produced by that house, including the diseases which they will cure. Sooner or later the preparation is so well known that the proprietors thereof can afford to drop the profession and cater now directly to the wants of the public, to whom they may now advertise in newspapers and magazines. This is the history of Scott's Emulsion.

Are there not doctors to be found by the wholesale who prescribe Scott's Emulsion to-day, and is not this preparation largely advertised in the newspapers and lay magazines? There is yet another word which should be said about testimonial-writing, and it is indeed painful in the extreme to think that it is necessary for this word to be said. I refer to the appearance in medical journals—some of them high class journals, or at least containing otherwise good reading matter from the pens of our best men—of editorials extolling the merits of various proprietary preparations. It is oftentimes not an editorial, but an original article, contributed by the editor of the journal or by the proprietor of the journal, whereby his theme finally resolves itself into praise for somebody's preparation.

Gentlemen, for fear that your attention may never have been attracted by any such editorial, and lest you think these seeming evils are creations of my own imagination, permit me to read from the May issue of a journal which claims to have the largest circulation of any medical journal in the world, the following few lines: "So let us rub up our drug knowledge. Let us refresh our minds concerning aconite and belladonna, and veratrum, and digitalis, and ergot, and cactina, and bromidia, celerina, sanmetto, viburnum, seng, lactopeptine, chironia, quinine, and all other tried and trusted friends made during our medical careers. Not by turning the pages of a work on materia medica but by object lessons. If it is a fluid extract, tincture, pill, or powder, let it be the product of some good house like Warner's, Daniel's, Schieffelin's, McKesson and Robins', Sharp and Dohme's, and other

reliable makers; if it is a proprietary preparation, *get an original package*, and then set to work to study it practically," etc. I am reading verbatim from this journal. It seems unnecessary that I call the journal by name. No doubt you recognize it by its cover. It is here for your examination, if you so desire.

Sometimes the reader's attention is called to the fact that the "Ad. of this preparation will be found in this number." Spirit of our forefathers in medicine, I address you: Is this progressive medicine? Now how does this condition of affairs come about? I can tell you. The various advertisers, through their advertising agent, demand that an article from the pen of the editor relative to their product appear in the journal at some time during the life of the advertisement, otherwise they will not advertise—it's a simple business proposition. These are facts I am telling you. I am informed on this subject. It has been thoroughly investigated by me. Will you agree with me that it needs investigation and that it needs a specific remedy? I believe you will. Are we ever justified in prescribing a proprietary medicine, and under what circumstances? This is a question which we might stop long enough, just here, to discuss.

The chief duty of the physician in his consideration of medicinal therapeutic agents is to make use of that article which best meets the individual requirements of the case. He desires first a pure article, and second the choicest quality of that article which can be had. He desires that the article be made acceptable to the palate and pleasing to the eye. Are all these prerequisites possible to obtain? Yes, I claim that they are. I claim that the doctor is best able to make the selection of the agent or agents which will best meet the indications of the case. I claim that he is able, or should be able, to select such drugs from his materia medica as will be physiologically synergistic and corrective and chemically compatible. This being done, and I claim that skillful pharmacists are everywhere to be found who can compound such a recipe, there is no reason why the druggist can not make an emulsion of cod-liver oil as good as the wholesale pharmacist; and, if it seems advisable to add some hypophosphites to this emulsion, why should not our druggist make the addition? It is true that the druggists can not make up various foodstuffs and malt products, because they lack the necessary utensils and equipment for their preparation. These, however, are about the only prescriptions which a first-class pharmacist is unable to fill, and such as he is unable

to compound should be the only ones which we should procure otherwise. What is accomplished by this promiscuous prescribing of proprietary medicines? Indeed, I can see nothing at all gained by such procedure. Heretofore the physician has sought the remedial agent, and so divided it and compounded it as to meet the requirements of his case.

Now the tables seem turned, and we are furnished with remedial agents almost infinite in number—all fixed in quality and quantity of their ingredients; and we are called upon to search about us and locate the patient who will best fit the remedy. In plain words, then, a host of manufacturing chemists and pharmacists, absolutely ignorant of disease, absolutely ignorant of histology, of pathology and of pathological anatomy, in fact ignorant of all those things which constitute a knowledge of medicine, are usurping the rights of doctors and indirectly mean to treat disease. Is this not quackery? Is this not contrary to the requirements of State laws of health, and is it not strange that the physician should not alone sit idly by and countenance it, but in fact should lend a helping hand and foster the institution, which means his downfall and ruin? We are simply the tools of these chemists; we are the means to their ends, and thereby we are being robbed of our identity, and are slowly but surely legislating ourselves out of existence. Dr. T. C. Duncan, in an article on New Medicines, says "the function of the physician is rapidly descending to that of follow your leader." Need I point out to you who the leader is? The same writer says, "It is a question whether the physician could not be held guilty of malpractice, if he uses drugs and compounds of whose character he is ignorant, and whose effects he can not foresee or antidote." A glance at the long list of proprietary formulæ which already exists, not to think of hundreds of new ones which are appearing as fast as they can be gotten out, and answer me, Is it possible for the busy doctor to retain in his mind even a half-way conception of their chemical makeup? Suppose the patient possess an idiosyncrasy for some ingredient in the preparation, and toxic symptoms become manifest, or suppose for any other reason evidences of poison arise, how can the doctor who is giving *Pil. Enteritis* or *Pil. Neuralgic* antidote chemically or physiologically a thing of whose identity he is totally ignorant?

Did you ever stop to consider what simple names the various proprietary preparations are given? In this respect they differ materi-

ally from the naming of the illustrious son by the fond mother. When asked why she had chosen such a long name for her boy, she answered, "Well, you see I am poor and couldn't give my son riches, so I thought I would at least give him a good name." The chemist wants the riches, so he calls his last-born compound by some simple, short name—the simpler and shorter the better, since the physician must remember it; and, if the people finally catch it and associate it with the condition for which it is prescribed, then the result will be happy and dividends will soon be declared. And do you for a moment believe that the druggist will refuse to furnish the patient with any one of the many and varied proprietary preparations for which he may call—without a prescription? If so, you have only to go to your druggist and ask him for the same preparation which Mrs. Blank obtained for little Johnnie. See if the accommodating druggist does not look it up and furnish you with what you want. Or go to him, tell him you have suddenly been seized with a diarrhea and would like to have something to relieve you. Probably he has just laid in a supply of tablet triturates. Among them are some of Wyeth's new Enteritis pills, containing arsenite of copper, bichloride of mercury, and morphine. As their name would imply, they were intended to check diarrhea, so the druggist fills his own recipe, and the patient grows worse until, finally, seeking a doctor, he receives a tablespoonful of castor oil, which removes the cause of the irritation, and the effect ceases. It is not that we do not appreciate pharmacal skill. The scientific doctor hails with delight new additions to his materia medica. He recognizes in them additions to his armamentarium and feels himself stronger because of their possession. But he dislikes the institution of proprietary medicine as it exists to-day. He dislikes the "descriptive literature" which goes with the proprietary medicine, seeing no good that can come of such literature, except that it educates the lay public in matters pertaining strictly to medicine, and since a little knowledge is often harmful and dangerous they have no reason to receive it. The physician dislikes being reminded by those out of the profession, and who are therefore not his equals, "that he should prescribe—because progressive doctors everywhere who have a regard for their patients use it." It is an insult to my intelligence, gentlemen—it is an insult to my judgment as a medical man to have such suggestions made to me. It is indeed obnoxious to me, and I am tired almost unto death reading Testimonials, Brochures, and Clinical Reports. There are others who have the same complaint to make, and

I for one am heartily in favor of adopting some stringent and radical measure toward effecting relief, if not a cure. There are undoubtedly some proprietary medicines which possess virtue, and a great many others that possess none. Testimonials are obtainable for the latter as well as the former, and the doctor whose custom it is to prescribe such medicines must not lose sight of this fact.

A friend of mine told me, recently, his experience in introducing a new drug. He had sold a half gross to a certain party, an old school-mate and close friend of his. A few months later he was going over the same territory a second time to refill orders, and incidentally to get testimonials. He called upon his old friend. Unfortunately the entire half gross were still on the shelves—not a single bottle had been sold; but the agent insisted that he must have a testimonial nevertheless, and argued that their old friendship was sufficient to demand one. It was finally agreed that the agent might himself write the testimonial, and if he confined himself to the truth it would receive the signature of his friend. This was what he wrote: "This certifies that I, Mr. Blank, have recently bought six doz. bottles ———. I declare I will never be without it. Signed, ———." There are several ways, you see, to tell the truth, and words, like figures, never lie. We protest against such a presentation of facts, or so-called facts, as the premises will not honestly allow of. As doctors of medicine we profess to know what to prescribe and how and when to prescribe it, and we protest against the literature which accompanies these thousand and one formulæ.

Recently a combination for the destruction of tape-worm was brought to my notice. The excuse on the part of the manufacturer for producing it and presenting a ready prepared mixture for the relief from this parasite was that it "saved the doctor from thinking out an otherwise difficult formula to remember." Good reason, don't you think, for charging treble or quadruple what a prescription containing the same amount of oleoresin male fern would cost? The element of cost in proprietary preparations is indeed worthy of our sober consideration. It is not reasonable to expect, after such extensive advertising and the money which this advertising costs, that a proprietary prescription could be sold at any thing like a reasonable price. As a matter of fact such preparations are quite expensive.

A medicine put up in six- to eight-ounce size, the dose of which would be a teaspoonful three times daily, often costs as much as a dollar and a half per bottle, viz., four to five days' medicine for this price.

At times the charge is outrageously exorbitant. Take, for instance, an eye lotion, three-ounce size, containing boric acid, tr. opium, bichloride mercury, sulphate of zinc, and glycerine with camphor-water as the menstruum, selling at one dollar. This entire combination, bottle and all, does not cost ten cents.

Another preparation for rheumatism, of which a capsule is taken every one or two hours, costs one dollar for fifty capsules—thirty-five to fifty cents for medicine per day. A prescription which contains these same ingredients would cost twenty-five to thirty-five cents put up at any drug store, and these are only fair samples of the cost of proprietary drugs. But most obnoxious of all in this institution of proprietary medicine is the literature which the manufacturer furnishes to the profession. Some of the statements made are so ridiculous, others are so untruthful, and still others are so malicious, that this paper would be incomplete were I to close without due regard for this portion of the subject. I shall therefore quote verbatim from several circular letters and other sources.

One concern, advertising their remedy by means of a pamphlet, says: "The formula was obtained from a practitioner whose standing in the community and well-known integrity are such that, could we append his name, our remedy would require no further recommendation." Sufficient reason, don't you think, my dear doctors, why you and I and the rest of the profession should make use of this formula—the originator's "standing in the community and his well-known integrity," etc. It's ridiculous, isn't it? Another circular starts out with the statement that "it is common for physicians to make an effort to replace the prolapsed womb, but they practically always fail, as the womb will stay up no longer than the time occupied in making the attempt." The house who have gotten this circular out, and who have sent it broadcast over the country, are the manufacturers of a uterine wafer, which they propose shall be introduced by the doctor (and later by the patient) high up into the vagina, viz., in the pouch of Douglas. This procedure is to be regularly done three times per week until the uterine engorgement has disappeared and the vaginal relaxation has been relieved. Now, I ask you candidly, is there a single chance that a little wafer placed in Douglas' cul-de-sac three times weekly, or any other number of times weekly, will bring about a cure of prolapsed womb, or will this wafer cure irregular, suppressed, and painful menstruation? Will it cure leucorrhea and the irregularities incidental to the change of life?

These are only a few of the indications which it is advertised to meet.

It is the greatest folly to expect any such results, and no sensible doctor who has any knowledge of the pathology of disease will for a moment consider such nonsense. However, the maker of these wafers is not affected by such comments. He is in search of the physician who will give his "article a fair trial," and to such he offers to send gratis a sufficient supply to "successfully treat one or more cases." In order to specially call the attention of the profession to the little wafer in question, the manufacturer has in this instance been kind enough to give the physician some advice relative to the replacing of the pro-lapsed organ. He advises that the patient be taught this herself, and to that end suggests the genu-pectoral position, concluding the advice thus: "Now take hold of the bowels with both hands and pull them up toward the shoulders." I suppose I must acknowledge my ignorance, gentlemen, by saying that I do not exactly understand just where the bowels are to be reached "by both hands;" and how they are to be pulled "up toward the shoulders," this too is an enigma for me.

Now this is a sample of the literature which comes to the desk of the scientific doctor of to-day. Some of it is evidently written by medical employes of the company—most of it is unworthy the paper upon which it is written or printed—and yet testimonials are never wanting to show "Clinical Facts" regarding these remedies. It is indeed time, gentlemen, we were calling a halt; and I trust this humble effort upon my part, made to-day before the Kentucky State Medical Society, will be sufficient to arouse that interest in the subject which the premises would seem to demand.

Kentucky has ever been prominent in matters pertaining to medicine. Directly and indirectly her sons and others, whose degree was obtained under the laws of our Commonwealth, have materially added to the science and art of medicine and surgery. Let us then not be backward and slow in attempting a reform which necessarily means so much good. Let us, on the other hand, make a bold stand, suggest the remedy, and support it.

In conclusion, it is not my purpose to-day to offer any solution for this vexing problem. I have confined myself strictly to the statement of facts, hoping at an early date to see some result accomplished by a combined effort on the part of the entire medical profession.

LOUISVILLE.

PEMPHIGUS.*

BY C. B. GRAHAM, M. D.

With a desire to present this case as clearly as possible, I have carefully examined a large amount of literature on dermatology, and am indebted to the valuable word-paintings of Duhring, Zeisler, and Morrow, and the clinical studies of Elliott, Stelwagon, Cabot, Malcolm Morris, G. H. Fox, Auspitz, Kobner, and Dumesnil.

Almost within the past decade, through the labors of M. Brocq of France and Duhring of our own country, there has been a revision of the bullous, vesicular, and erythematous affections. The ninety-seven varieties of H. Martins have given way to the broad generalization, dermatitis herpetiformis of Duhring, and to the three distinct nosological entities of Zeisler, namely, pemphigus vulgaris, pemphigus foliaceus, and pemphigus vegetans. Pemphigus is a very rare disease,¹ and it is only by the closest observation that we can discriminate between it and the dermatoses which Duhring includes under the title of dermatitis herpetiformis. The clinical history of pemphigus illustrates to us a chronic cutaneous affection characterized by the successive eruption of variously sized bullæ, without any primary inflammation, and running an indefinite course. Exceptional cases are accompanied with itching. The lesions are usually larger than in dermatitis herpetiformis; there are pigmented spots indicating former lesions; the blebs as a rule do not occur in groups; they have a chronic appearance, sometimes ulcerative, rarely any wheals or scratch marks. Each successive crop of bullæ undergoes a fairly typical evolution, and the appearance of a new crop is generally accompanied by some pyrexia, which, however, is rarely of much consequence except in the aged, or where the chronic form is marked with constitutional symptoms, as in pemphigus foliaceus, where the vitality becomes so depressed and the debility so great that the patient sinks through the constant drain on his powers of resistance. I have never had but two cases of this disease in my private practice. One of these was an infant suffering with the vulgaris form, the other a man of fifty-three years, with chronic vulgaris, which was being supervened by a flaccid condition of the bullæ, the exfoliation of the epidermis, and the flaky nature of the lamellæ described by Cazenave as pemphigus foliaceus. A report of this case forms the subject of my paper.

* Read at the forty-second annual meeting of the Kentucky State Medical Society at Owensboro, Ky., May, 1897.

James W., aged fifty-three, American, family history obscure, and with a personal history of hardship and exposure in the bottoms, getting out timber. For several years he has been engaged in farming in the bottoms along the Ohio River. He came under my observation in June, 1894. His condition was then as follows: In front over the thorax and down over the abdomen the integument was covered with blebs, some hard, some soft and flabby, with thin crusts and scabs. Here and there were irregular areas of apparently healthy epidermis with small flakes or lamellæ clinging to the edges of these partially regenerated spaces. Both of his lower limbs were involved, and in a more deplorable condition than the trunk, with blebs, fissures, excoriations, small ulcers, scabs, confluent patches, and single blebs. Some with the purulent serum oozing forth, leaving the corium raw and bleeding. In the mouth were a few patches of epithelium having a soiled, macerated appearance.³ His temperature was 102° F.; tongue coated; conjunctivæ slightly yellow, eyelids inflamed; liver enlarged; bowels constipated. No history of a specific trouble. I submitted a specimen of his urine to Mr. Julius Baldauf, an expert chemist of Henderson, Ky. He claimed to find urates, phosphates, broken-down cells, traces of uric acid, and beaded organisms. Patient was greatly emaciated, and a peculiar sickening odor emanated from his clothing. Said that he had "had occasional attacks of intermittent fever and ague for twenty years."

After keeping him under observation and treatment for several days I concluded that it was a case of pemphigus caused by exposure,³ cold, damp environment, and malarial poisoning, as claimed by Crocker and Schwimmer. In this case constant and persistent attacks of malaria with ague, continuing through a series of years, must have been the main etiological factor. In the cyanotic stage of intermittent fever there is a contraction of the cutaneous vessels, and the skin becomes dry and collapsed.⁴ Then comes the increased temperature of the hyperemic stage, with its concomitant congestion of the peripheral and capillary nerve endings; an engorgement of the excretory ducts with the rapid decrease of temperature acts as a traumatic⁵ shock, causing injuries to the peripheral nerves, producing an atrophy,⁶ decreasing the supply of nourishment to the primary nucleated protoplasmic cells. The formation of the bullæ is probably due to a dynamic power in the rete mucosum rendering aid in ridding the integument of the dead primal cells. The experiments of bacteriologists have not as yet discovered in pemphigus any germs of a pathognomonic character, and

the cocci which have been cultivated from the contents of the bullæ are probably offspring of the disintegration of the delicate bioplasmic epithelia of the rete mucosum.

Treatment. Reasoning from the etiology which I have given, I easily decided upon a line of treatment. In this, as in many other dermatological troubles, the winters of our discontent are readily brushed away by the physiological exhibition of arsenic, quinine, and other intelligent antiseptic treatment. Hutchinson and Bulkley claim arsenic as the sheet-anchor of the hope of the dermatologists. Arsenic acts specifically to counteract or destroy the germ of malaria.⁷ Binz, Roberts Bartholow, and many others claim specific antiseptic power for quinia; and there is now no doubt in the minds of the intelligent practitioner that the germicide power of quinia is the true explanation of its success in the treatment of septicemia, in pyemia, malaria, and other zymotic diseases. I first prescribed calomel 1-10-grain doses every hour, until twenty doses had been taken in two days. I gave it in small doses, because in that manner it does not decrease the number of red blood corpuscles nor impoverish the blood (Wilboucherwitch, Keys), and at the same time it exhibits its powers as a glandular stimulant without impairing the ozoning functions of the blood-vessels. Gave quinia arsenias, gradually increasing the dose until I noticed the physiological effect of the drug. Gave nightly warm alkaline baths and dusted the lesions with calcium borate. The patient improved steadily for three months, when he began to retrograde, and for several weeks it seemed as if all my treatment accomplished nothing. I commenced a different course of treatment. Had him bathed thoroughly with sulphuret-of-potassium baths,⁸ applied a powder of aristol and euophen, equal parts. Prescribed nux-vomica and syrup ferri iodidi every four hours, keeping this up for one month. I then changed to elixir ferri quinia et strychnia, with hot bichloride baths (sol. 1-10,000) with stearate of zinc as a dusting powder; also applied a roller bandage wherever practical. Patient improved steadily until March, 1895, being able to do some work; general improvement noted. (Used ichthyol boracic acid to relieve pain, also a lotion of liquor calcis, acid salicylic, pulverized chalk, and had him rubbed several times with linseed oil.) Having some symptoms of malarial trouble again and also some manifestations of congestion of the abdominal viscera, I gave magnesia sulphate so as to relieve the congestion by an outward osmosis from the blood-vessels.⁹ Prescribed :

- R. Tinct. iodini compositæ, ʒ iij;
 Liq. potassii arseniatis, ʒ iv;
 Syr. sarsaparillæ compositæ, q. s. ad. ʒ ij.
 M. Sig: One teaspoonful in water after each meal and at bedtime; and used
 aristol and euphron powder externally.

I kept this treatment up as described, looking well to the keeping of his excretory organs in order, until November, 1895. At this time his trunk and upper extremities were free. (Will please note that sometimes the patient would be without medicine and treatment for several weeks at a time.) Patient then passed from under my observation until July, 1896, when he again sent for me. I found him suffering with another attack of malaria, and on examination found his skin trouble considerably worse than when I saw him last; and in addition to the inflammation¹⁰ an intense pruritus had developed pemphigus pruriginosus. His lower limbs alone were involved, although he said that he had had several "blebs on his trunk, but they had healed." I prescribed nearly the same treatment as at first, except I. nosophen, one of the iodine preparations, as a dusting powder for several weeks, and also used lanolin with thirty grains of quinine sulphate to the ounce as an ointment, with quinia arsenias again pushed to the physiological limit. Patient improved, and excretory organs acted well under the internal treatment given. Lesions disappeared from trunk and upper extremities, but lower extremities improved slowly. My greatest trouble now was to enable him to rest at night on account of the pruritus. The blebs were rarely allowed to develop. The excoriations and small ulcers healed very slowly. When the lamellæ would peel off, the thin skin underneath seemed to become infected from the scratching. In November, 1896, I gave him a sample box of unguentum resinol with directions how to apply it. Several days afterward, he sent me word that "one application of the ointment enabled him to secure a good night's rest." I then read up on the formulæ as sent out by the manufacturers, and learned that it was composed of the active extract of empyreumatic oil of juniper, a synthetical derivative of the coal-tar series, with bismuth and lanolin. Having used, with success, the oil from the juniperus oxycedrus with acetanilide in the treatment of pruritus and psoriasis, I at once saw the therapeutical value of the combination. I had him to bathe the parts thoroughly with a hot bichloride solution (1-5,000), and dried with a soft towel; I then anointed the lesions thoroughly with the resinol ointment, and applied a roller bandage over both limbs. I prescribed Syr.

Hypophos. Comp. Conc. (Baldauf) with essence of pepsin internally three times a day. Patient had a slight relapse in December, 1896. I changed treatment for four weeks, giving liq. sodii arseniatis three times daily, and gradually increasing the dose to twenty minims. Also prescribed:

R Quiniæ sulphatis, 3ij;
Unguent. resinol, 3iij.

M. Sig: After bathing thoroughly with a hot solution of sulphate zinc and hydrarg. bichloridi, apply the ointment as before.

I then powdered the lesions and also the entire surface of both legs with aristol and euophen, equal parts, and applied roller bandage. After the expiration of four weeks, there being some gastric disturbance, I prescribed Syr. Hypophos. Comp. Conc. (Baldauf) with five-grain capsules of Taka-Diastase internally three times a day, continuing the external application as before. Patient came in the first of February, 1897. I examined him thoroughly, and found all the lesions had disappeared, though the skin did not seem to be in a healthy condition. Called again in March: found him still improving, with no symptoms of his old trouble. Advised him to keep up the tonic treatment. I think it is very probable that the trouble will return next winter or fall, as he is not likely to keep his system in a healthy condition.

AUTHORITIES CITED.

¹ The reports of the American Dermatological Association mention 183 cases out of a total of 123,746 of cutaneous diseases.

² Anderson, in his work on skin diseases, in the chapter on pemphigus, says, "It is exceptional to find distinct bullæ upon a mucous membrane, as the epithelium covering it is so tender as to give way whenever the serum begins to accumulate."

³ See article in Medical Age, Vol. xv, March 10, 1897, on Influences of Climatic Conditions on Functions of the Skin, by Isaac Chinc, M. D.

⁴ In a case of pemphigus Kerschner (Arch. für. Derm. and Sulph., 1882,) attributes the disease to a cessation of perspiration.

⁵ Joseph Zeisler, Vol. III, p. 215, Morrow's System of Genito-Urinary Diseases, Syph. and Derm., "Traumatism causing injuries to the peripheral nerves and to the central nervous organs has been repeatedly the cause of the disease."

⁶ Petrini (Second Int. Derm. Cong., Vienna, 1892,) made careful studies of three cases of pemphigus, and found what seemed to him an atrophy of the peripheral cutaneous nerves.

⁷ M. L. Guice, M. D., Amer. Medico-Surgical Bulletin of September, 1894, p. 1033.

⁸ Janieson (Edinburgh Medical Journal, Edinburgh, January, 1892): Two ounces of salt potassium, three pints of starch, and thirty gallons of water.

⁹ Roberts Bartholow, Materia Medica, p. 692.

¹⁰ Some of our best authorities claim that in pemphigus there is but little pruritus. Others claim that it is not without the itching in the acute stage.

¹¹ Bartholow, Materia Medica, p. 154.

HENDERSON, KY.

Abstracts and Selections.

NUCLEINS AND NUCLEO-PROTEIDS IN THEIR RELATION TO INTERNAL SECRETION.—In the *Boston Medical and Surgical Journal* for August 20th there is an article on this subject by Professor Russell H. Chittenden, in which he remarks that the internal secretion of glands is rapidly becoming a subject of primary importance to the physiologist, and its development bids fair eventually to furnish the physician with a fund of knowledge directly applicable to the explanation of many obscure disorders, and replete with suggestions as to methods of treatment. Until quite recently, he says, the more prominent secreting glands and structures of the body have been associated solely with their obvious function of manufacturing a specific secretion or excretion to be discharged externally through special conducting tubes. The existence of so-called ductless glands, however, such as the suprarenals, thyreoid, thymus, etc., with cellular structure bearing all the marks of active tissue, has long pointed to the probable production in such glands of specific secretions designed solely for internal use, namely, the manufacture of substances which may be at once resorbed into the blood, and perhaps utilized in a variety of ways for controlling and regulating either special or general metabolism.

It is not Professor Chittenden's purpose to enter into detail concerning our knowledge of the internal secretions formed by the liver, kidneys, thyreoid, pituitary body, suprarenals, etc., but he emphasizes the fact that information already accumulated shows plainly that all of these glands are active in the formation of internal secretions, all of which are endowed with marked physiological properties. He thinks that this metabolic activity characteristic of these several glands results, in some cases, in the formation of several physiologically active substances, some of greater importance than others.

The production of the specific substances which give character to the various internal secretions is obviously a function either of special cells contained in the gland, or it may be in some cases an inherent quality of all the cellular elements of a given gland.

However specialized the cells concerned in the production of these physiologically active substances may be, he continues, they are certainly typical cells with distinct nuclear protoplasm and cytoplasm, and if one is to unravel the nature of the chemical processes by which the active agents are produced and learn their true origin, as well as their exact chemical structure, it becomes necessary to study the character of the material of which the cells are composed, and out of which the physiologically active principles are constructed. It is quite proper to say that these bodies orig-

inate through the metabolic activity of the cell, but such a statement carries with it little exact knowledge, and throws little light upon either the nature of the process or the character of the resultant products. Further, we must not limit our conception of internal secretion to a few isolated glands, but keep clearly in mind the fact that wherever there is metabolic activity absorption of products is likely to occur, and is no doubt a constant feature of all glands and tissues, although obviously not all organs yield catabolic products of vital importance.

A few years ago, says the author, our knowledge of these bodies was very limited—and indeed it is none too complete to-day—but recently it has been growing very rapidly, and we are learning that under the name of nucleo-proteids, nucleo-albumins, nucleins, nucleic acids, we have to deal with a class of very remarkable bodies which constitute the greater part of the nucleus and cytoplasm of nearly all cells, and which evidently play an all-important part in every form of cell metabolism. Proteid or albuminous bodies have long been known as the chief constituents of protoplasm, but we now understand that it is not as simple proteids that these bodies exist in the cell, but mainly as compound bodies—that is, as combinations of nucleic acid with some form of proteid or albuminous matter.

Between the cytoplasm and caryoplasm of a cell the cytologist recognizes a distinct and usually constant difference, which shows itself at once on the application of appropriate dyes. The nucleus of the cell is rich in nuclein, while the cytoplasm, and perhaps the nucleoli as well, are characterized by the presence of nucleo-albumin with a less marked affinity for dyes. But nucleins and nucleo-albumins or nucleo-proteids differ from each other simply in the proportion of proteid and nucleic acid which they contain. The bodies of this class are all acid bodies, of weak acidity to be sure, and with a varying degree of acidity, but sufficiently marked in every case to suggest the presence of some form of acid radicles. This fact, indeed, says Professor Chittenden, led to the discovery of nucleic acids, bodies readily obtainable from all forms of true nucleins by the action of dilute alkalies, the latter seeming to break up the combination existing between the acid and the albuminous matter with which it is naturally combined. A so-called nuclein is thus seen to be simply a combination of some form of proteid matter with a nucleic acid, while a true nucleo-proteid or nucleo-albumin is a combination of a nuclein with more albuminous matter.

Another fact which implies the existence of even a greater variety of nucleic acids is found in the presence of carbohydrate groups in some acids. Thus, the nucleic acids obtainable from the cells of the pancreatic and mammary glands, as well as those prepared from yeast cells, yield by cleavage a reducing carbohydrate, while from the acid of the thymus gland levulinic acid has been obtained. In some other forms of nucleic acid, on the other hand, no carbohydrate groups can be detected. Again, there are some forms of nucleic acid, so-called paranucleic acid, from which no nuclein bases whatever can be obtained by decomposition. Hence, says

Professor Chittenden, it is very evident that under the head of nucleic acids there is a large class of closely related bodies, superficially showing a close resemblance in general reactions and properties, but with a diversity in inner structure clearly suggestive of corresponding differences of function.

The very nature of the many bases which come from the cleavage of the nucleic acids outside of the body; the ready convertibility of these bases into other allied bodies by oxidation and reduction; their own physiological action, which though mild is marked; the possibility, the probability, that many other catabolic products may be obtained from these nucleic acids; and further, that still other nucleic acids, at present undiscovered, may exist in the cell protoplasm; all offer good reasons for believing that the nucleins and nucleo-proteids, which are the most prominent constituents of the protoplasm of all cells, are the most probable antecedents of the internal secretions.—*New York Medical Journal.*

SERUM TREATMENT IN TUBERCULOSIS.—At the recent meeting of the American Medical Association Dr. Paul Paquin delivered an interesting report on the treatment of tuberculosis by serum, of which the following is an abstract from the Journal of the American Medical Association: There are some, says Dr. Paquin, who have failed in treating consumption with serum; there are physicians who have doubts as to its value in therapeutics except that which may be due to inherent conditions dependent on the relative immunity of the horse against tuberculosis; doctors who doubt the qualifications of private laboratories and their workers, and of a general practitioner's ability, opportunities, and time to investigate, and to experiment scientifically, safely, and successfully.

The antitubercle serum, like the antitoxin for diphtheria, rests on the biological laws governing the defensive forces of an organism to oppose the encroachment of microbes and their products on the tissues and blood. Tuberculous individuals sometimes recover without a remedy. This is due to nature's own efforts, viz., exalted phagocytosis, with all that this interesting physiological phenomenon implies. A complex being, such as man or the horse, is a republic of small animated subjects, the cells, with distinctive individual properties and obligated to co-operative functions for the sustenance of the whole. The brain and nerve cells constitute the governing power; the phagocytes constitute the soldiers of the country. Their arms consist of their individual annihilating power in a physical sense, and the antitoxin elements they produce, capable (probably by a digestive or diastatic property) of neutralizing the poisons thrown amidst them by the armies of microbes constantly attacking the wonderful aggregations which they defend. What occurs in a case of consumption cured by nature occurs in a horse properly subjected to the influence of the consumption poison. Either a natural antidote is increased in power, or a new one created, and this, says Dr. Paquin, is what exists in the serum he uses in man. Man suffering from tuberculosis is under the influence of a certain

amount of tuberculin, a poison, and nature produces in his system an antitoxin to counteract this noxious agent. But usually the army of invaders win the fight after a more or less prolonged and painful conflict. What the laboratory is expected to do is to supply man with this defensive force, the antitoxin produced at the expense of the horse's system rather than his own.

One must not be too sanguine, he continues. Little hope can be offered to the unfortunate who suffers from advanced tuberculosis, with extensive destruction of tissue, general tuberculous intoxication, general debility, pronounced dyspepsia, deficient assimilation and dissimilation, difficult and perverted secretions and excretions, and the hopelessness of such cases is emphasized, more or less, according to the more or less pronounced microbic complications which may exist. These complications, he says, are influenced only secondarily by virtue of nature having recovered some strength after the bacilli of tuberculosis are arrested in their development and devastation. He has confidence that early cases of tuberculosis can nearly all be arrested by serum administered under proper conditions, and that, were it the policy of the laity to submit to constant observations and repeated analysis the moment a lung or bronchial irritation manifests itself, the diagnosis of incipient phthisis would be made early enough to diminish the death-rate due to consumption ninety per cent by the action of serum.

Dr. Paquin calls attention to cases that have not yet been reported, or reported in the past to a limited degree, in which the patients are now in a different or more improved condition. The results obtained, he says, have been favorable and unlooked for; the patients have regained their health and strength and have resumed their regular occupation. With one exception there was a remarkable increase in weight and a wonderful improvement in the condition of the lungs.

The favorable effects of the serum treatment, however, says Dr. Paquin, must not be overestimated, for improvement in cases of very advanced disorganization and prostration has not been of long duration, as this treatment can not be expected to replace lost tissue or cure fatal lesions. It is, therefore, of radical and great importance to diagnose tuberculosis at the earliest possible moment, before a too grave mixed infection takes place.—*Ibid.*

GENERAL RULES FOR THE TREATMENT OF HYDATIDS OF THE LIVER.
Dr. Frank (American Journal of the Medical Sciences, October, 1896,) suggests the following rules: "(1) An incision over the most prominent portion of the presenting mass, be this high or low; or, if no tumor can be discovered, the area of hardening and increasing dullness should be our guide for incision. (2) Examine for adhesions: if they be complete, our work is simplified; if not, we must sew the peritoneum all around the mass so as to shut off the abdominal cavity. (3) Introduction of the aspirator. This needs no explanation; but it is well to bear in mind that we do

not always obtain the characteristic fluid, as at times the fluid may be too consistent to enter the needle. (4) We must wait for three, four, or five days for adhesions to become firm before opening the cyst. (5) When the cyst is opened a large opening should be made and the largest-sized rubber drain introduced. (6) The dressings must be made under strict antiseptic precautions, as there is a possible danger of secondary infection. (7) The cyst cavity should be washed out with sterilized water for the first week, after this with carbolic-acid solution, iodine solution, peroxide of hydrogen, boric acid, creosote, or any of the antiseptic solutions. The point on which there has been more diversity of opinion than any other is: When there are no adhesions, should the operation be made in one or two sittings? Most authors advise two operations, claiming that there is too much danger of allowing the hydatid fluid to enter into the peritoneal cavity, which would perhaps result fatally, or it might form a nucleus for another cyst. With care an operation of this kind can be performed in one sitting, as my first case will show; but the best plan is, if time will permit, first to sew the peritoneum to the sac and wait four or five days for the adhesions to become firm, as was done in my second case."—*Medical Record*.

CASTRATION AND VASECTOMY IN HYPERTROPHY OF THE PROSTATE.—Dr. J. W. White, who introduced the operation of castration for hypertrophied prostate, in a lecture recently delivered states that as oöphorectomy was much abused a few years ago, so is this operation now, and that a similar result in the treatment of appendicitis is threatened. He never encouraged the idea that his operation was a universal panacea. If the patient is not very old, retains his sexual power, has sound kidneys, and only a moderate amount of residual urine, the operation is out of the question and only catheterism is required. If pain is marked and resists small doses of bromide, belladonna, phenacetin, etc., that may be an indication for operation. In such cases vasectomy should be selected. If the residual urine reaches twelve ounces, and if it does not diminish under catheterism, the dangers from backward pressure on the kidneys, increasing atony of the bladder, and cystitis are so great that vasectomy is again indicated. In patients with larger prostates, with eight or ten ounces of fetid or mucopurulent urine, with frequent micturition, and pain on the introduction of the catheter, some operation—vasectomy, castration, or prostatectomy—is indicated. The younger the patient, the greater the sexual power, the sounder the kidneys, and the better the general health, the more the surgeon should incline toward prostatectomy. If the patient is somewhat older and the sexual power is becoming enfeebled vasectomy is to be chosen. Still greater age, with marked renal disease or great failure of health, indicates the same operation. If, however, with the greater age and distinctly lessened sexual power the renal and general conditions are good, castration promises the most benefit with the least mortality. In the worst cases, in which the prostate is enormous, the cystitis excessive, the

bladder dilated and atonied, the retention absolute, the kidneys inefficient, and catheterism difficult and occasionally impossible, any operation involves risk. But this must be taken. Castration in these cases is the best procedure. It will occasionally fail, but often the improvement is marvelous.—*Lancet*.

THE PATHOLOGY OF APHASIA.—The carefully observed case which Dr. Bastian brought before a recent meeting of the Royal Medical and Chirurgical Society will be of the greatest importance, not only to physicians who are interested in the subject of aphasia, but also to physiologists and psychologists. The patient, who had been under almost continuous observation for eighteen years, was almost completely aphasic, and yet at the necropsy Broca's convolution was found to be intact. Those who have followed Dr. Bastian's luminous teaching on the subject of aphasia will remember this case as frequently made use of during the patient's lifetime to demonstrate peculiar speech defects which Dr. Bastian, correctly as the result proved, attributed to disease at the posterior extremity of the fissure of Sylvius. But, apart from the value of the case as showing that a lesion of Broca's convolution is not essential for the production of aphasia, the case is important with reference to the actual position of the centers for recording auditory and visual sense impressions. In Dr. Bastian's case there was throughout ability to understand what was said, and to read, although the patient could not read aloud. This appeared to imply that these sensory centers were performing their function. But from the careful pathological report of Dr. Risien Russell the supra-marginal, angular, and temporo-sphenoidal convolutions, where these centers are commonly believed to be located, were entirely destroyed. It is difficult to find in the pathological report any evidence that the lesion was of a progressive nature, although Dr. Bastian feels compelled to assume that it was so and that the destruction of these convolutions took place subsequently, the corresponding parts of the right hemisphere having gradually taken on the function. This, however, is purely hypothetical. The patient appears never to have had word-blindness or word-deafness, and there is no history pointing to any gradual education of the right hemisphere. The case was carefully observed and admirably recorded, and it will be better to wait for further light from similar cases before deciding exactly what its teaching is with regard to the seat of the sensory processes concerned in the expression of ideas by words.—*Ibid*.

MENTAL EFFECTS OF HASHEESH.—In a recent number of the *Journal of Mental Science*, in which Dr. Clouston gives an account of the Cairo Asylum, he also contributes some interesting information obtained from Dr. Warnock, superintendent of that asylum, in reference to the prevalence and the nature of the mental disturbance associated with the excessive use of hasheesh. Thus, of 253 admissions to the asylum in the latter half of

the year 1895, no less than 40 were admitted on account of symptoms attributed to the excessive use of the drug. In 41 per cent of all the male patients hasheesh alone or in combination with alcohol caused the mental symptoms, while this was the case in only 7 per cent of the females. As to whether there is a special recognizable form of mental disturbance produced by hasheesh, Dr. Warnock's conclusions are that in a considerable number of cases in Egypt hasheesh is the chief if not the only cause of the mental disease, although it is doubtful whether hasheesh insanity can be diagnosed by its clinical characters alone. The usual types are three in number. (1) Hasheesh intoxication—an elated, reckless, "swaggering" state, with optical hallucinations and delusions of demoniac possession. The condition may be actual delirium, milder and less aggressive than that of alcohol, and exhibiting none of the ataxic phenomena of the latter. Recovery takes place in a day or two or less, and the patient usually recognizes the cause of his excitement. An interesting medico-legal question arises in connection with this intoxication, viz., whether the subject of it is to be held responsible for crimes committed in this state. (2) Acute mania is another form of hasheesh insanity. Terrifying hallucinations, continued restlessness, sleeplessness, incoherence, and exhaustion are the prominent symptoms. Such cases usually last some months and do not always recover. (3) This insanity also takes the form of weak-mindedness. The patients are usually quiet and well-behaved, but are over-talkative, easily pleased, excitable about small things, and unconcerned as to the future. Besides these three types Dr. Warnock says there are numbers of cases of chronic mania, mania of persecution, etc., said to be produced by hasheesh, but with these he is not familiar.—*Ibid.*

"PRIMARY COMBINED COLUMN DISEASE."—An account of a condition called by this cumbrous name is published in a recent number of the *Journal of Nervous and Mental Diseases*, by Dr. H. W. Rhein, of Philadelphia. The patient was a woman aged fifty-nine years, who complained of unsteadiness in walking and numbness from the waist downward. This had commenced about two years previously, but before that she had enjoyed good health. She was exceedingly anemic and moderately emaciated; the legs were weak and there was general feebleness. The gait was ataxic and there was difficulty in standing with the eyes closed and the feet together. The knee-jerks were present, but not easy to elicit. A large tumor was found involving the fundus of the uterus. There was no interference with the sphincters, fine rhythmical tremor was present in both hands, and the hemoglobin and blood corpuscles were reduced to about 50 per cent. The patient died a year later from exhaustion, but there is no note of her condition before death. At the necropsy a large fibro-sarcoma was found involving the body of the uterus, and some small masses were also found in the liver. The brain appeared to be normal, and the spinal cord was smaller than usual and showed evidences of changes both in the

posterior and lateral columns. After staining, sclerotic change was distinctly visible in both posterior and lateral pyramidal tracts throughout the whole length of the cord; this was most marked in the dorsal, less in the cervical, still less in the lumbar, while it had disappeared in the sacral region. In the posterior columns the periphery next to the posterior root and centrally was less affected, and the columns of Goll were more intensely degenerated than those of Burdach. The ganglion cells are said to have shown slight changes. The author of the paper discusses the nature of this case as one of combined tabes or ataxic paraplegia and refers to the condition described by Lichtheim and others of cord changes in so-called pernicious anemia. This case undoubtedly comes into this group, but for this occurrence of the changes pernicious anemia is probably not a necessary concomitant. It is not unlikely that any condition leading to progressive and profound enfeeblement often, of course, associated with great anemia may be found to be connected with this change in the cord, and it is probably of the same nature as the condition described by Dr. Putnam, of Boston, some years ago as occurring in aged and enfeebled persons, especially women.—*Ibid.*

SYPHILITIC NEPHRITIS.—Doederlein (*Münch. med. Woch.*, October 13, 1896,) says that the occurrence of nephritis in secondary syphilis has always been looked upon as an open question. In the following case, investigated in Birch-Hirschfeld's laboratory, the changes in the chief organs of the body were like those found in the kidneys. A patient, aged nineteen, contracted syphilis in 1895, and had a characteristic eruption. Some nine months later the urine became less in quantity, and contained a little albumin and casts. The patient shortly died in coma. In the lungs and lymphatic glands there was evidence of induration, in the liver an apparently already gummatous induration, and in the kidney a subacute interstitial nephritis. Before admission the patient had attacks of shivering, night sweats, and general *malaise*, undoubtedly due to an acute exacerbation of secondary syphilis. The case was complicated by an eruption occurring after three injections of mercury, and constituting a mercurial erythema. The patient must have had an idiosyncrasy to this drug. The nephritis, however, the author maintains, could not have been of mercurial origin, for it would have been parenchymatous and not interstitial, nor was it due to the erythema, because this latter had not lasted long enough. The opinions concerning nephritis in secondary syphilis differ. Wagner found similar changes to those present in the author's case. The characteristic change in the organs was induration due to interstitial overgrowth. Probably a toxin produced these interstitial changes. Notwithstanding the diminution in the urine, it contained but little albumin and few casts and no epithelium. The albuminuria frequently occurring in secondary syphilis and favorably influenced by mercury are in all probability mostly referable to the form of nephritis described above.—*British Medical Journal.*

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NEW METHOD FOR THE CARE OF GONORRHEAL SALPINGITIS.

The management of gonorrheal salpingitis by local therapeutic measures and conservative surgery appears to have scored a success of the first importance under the skillful hand of Dr. Robert T. Morris, of New York. In the American Journal of Obstetrics for May is a preliminary note, in which Dr. Morris details the treatment of his first case with brilliant results.

The operation was done at the New York Post-Graduate Hospital, March 12, 1897. The patient was twenty-six years of age. She had contracted gonorrhea at sixteen, since which time she had not been free from profuse gonorrheal leucorrhea. She had been treated by the best physicians of America and Europe without relief.

The details of the operation and treatment are thus described:

I opened the peritoneal cavity at Douglas' cul-de-sac, separated the right oviduct from adhesions, pulled the oviduct into the vagina, inserted a small hard catheter, closed the fimbriated extremity about the catheter with two turns of a narrow rubber band to prevent regurgitation of fluids, injected through the catheter a seven-volume preparation of H_2O_2 , which directly appeared foaming at the os uteri, and continued this injection for a full minute for the purpose of cleansing the lumen of the oviduct and of the uterus from purulent matter. A two-per-cent solution of formal was then injected in the same way for two minutes. The rubber band and

catheter were removed from the right tube and the process was repeated upon the left tube. The left tube was occluded at the uterus, but the H_2O_2 suddenly burst through the obstruction just as the ballooned tube was apparently on the point of bursting, in which latter event it would have been excised. A microscopical examination of the discharge from the cervix had been made before operation and the gonorrheal nature of the case definitely determined. After replacing the oviducts in the normal position the small wound in the vagina was drained with a wick for one day. The patient suffered no inflammatory reaction of importance. On the fifth day after operation she was allowed to sit out of bed, and on the seventh day she returned to her home, indulging in sexual intercourse shortly afterward, as I had neglected to advise her not to do so. On the sixteenth day after operation she returned for the purpose of allowing me to obtain a specimen of uterine discharge for the microscope. She was elated at the results of treatment, stating that she had been entirely free from leucorrhea for sixteen days, and for the first time in ten years. A small amount of mucus from the cervix was obtained. An extensive examination of this mucus by Dr. H. T. Brooks showed a very few gonococci in squamous epithelial cells, indicating that infection was lurking in the mucous crypts of the cervix. I am now injecting the lumen of the cervix with formal solution, in the hope of eventually eradicating all of the gonococci. The results of treatment in this case and in a series of selected cases of gonorrheal salpingitis will be published later.

The method is new, rational, scientific, and gives promise of great results. The accomplished surgeon is to be congratulated upon the originality displayed in the procedure, and the skillful manner in which it was executed. The results of this treatment in the series of selected cases promised by the author will be awaited with high expectancy by the profession in general; for surely nothing would be more welcome to woman and her physician than a conservative, safe, and effective method of dealing with this opprobrium of medicine and bonanza of the celiotomist. The pendulum is swinging to the conservative side. May its stroke thenceward be slow and long!

A WELL-MERITED HONOR.

We learn with pleasure that Governor Bradley has appointed Dr. George W. Griffiths, of Louisville, Surgeon-General of the Kentucky State Militia. The honor could not have been better bestowed. It falls upon a gentleman, a soldier, and a surgeon of high attainment. We congratulate the defenders of the State.

Obituary.

DAVID MILTON BATES, M. D.

Dr. David Milton Bates, of Shepherdsville, Ky., died January 30, 1897, of pneumonia, in his fifty-third year of age.

He was born May 26, 1844, on a farm in Jefferson County, about twelve miles from Louisville. He was educated in the public schools of Jefferson County, and at the age of twenty years he began his business life as a school-teacher in a country school in his native county.

He taught school two years, at the same time studying with the noted Dr. Cooper, who is now one of the leading physicians of Jefferson County.

Dr. Bates attended lectures at the Kentucky School of Medicine, and graduated in 1867. He commenced the practice of medicine in the section of Jefferson County known as the Wet Woods, but, not liking the locality, soon moved to Shepherdsville, where he formed a partnership with the late eminent surgeon and physician, Dr. Joseph F. Birkhead.

On September 20, 1870, Dr. Bates married Miss Nannie W., daughter of the late prominent citizen and wealthy farmer, Woodford McDowell, near Shepherdsville.

Soon after the doctor's marriage the health of his partner, Dr. Birkhead, became such as to disable him from active practice, when the business was turned over to Dr. Bates. The doctor continued regular practice up to the time of his fatal illness.

Besides his widow, two children survive him—a daughter and a son. His daughter, Ada M., the oldest, who is now twenty-six years of age, married, in October, 1892, Mr. E. F. Troutman, cashier of the Bullitt County Bank. His son, Dr. Samuel W. Bates, is twenty-three years old. He graduated at Prof. H. K. Taylor's Training School for Boys in Louisville, and then entered the University College of Medicine, where he graduated with honors, March, 1896. He then formed a partnership with his father in the practice of medicine. The young doctor married Miss Sarah Lee, a very estimable young lady of Shepherdsville, only a few months before his father's death.

Dr. Bates' grandparents were of old Virginia stock, and were pioneers to Kentucky, having come from the mother State and located in Jefferson County in 1800. His father was born in Jefferson County, and died at the old homestead in 1871. His mother, Mrs. Ann McCoy Bates, was also born and raised in Jefferson County, where she is living with a daughter, and although eighty-two years old still enjoys good health.

Dr. Bates was one of the foremost physicians of his county, and was very popular among his clientel . He was a man possessed of fine, charitable feelings, never refusing to render medical services on account of inability to remunerate him. He was a man who took great interest in every thing that pertained to the welfare and happiness of his people. He was a devoted member of the Methodist Church, having joined in 1869. He also took great interest in Sunday-schools, and had been superintendent for fifteen years.

Much could be written in commemoration of the good qualities of our lamented friend, as he stood at the head of his profession, as well as perhaps the foremost man in works of philanthropy in his county. But, while we award him so much credit for his professional and manly qualities, we must allow some praise to the family surroundings. Where a man is blessed with congenial family companions his opportunities for doing good in the world are greatly promoted. In this particular Dr. Bates was happily situated. His amiable wife and children no doubt contributed greatly to the eminence to which he attained in the good works of this life.

While the people of his county and the medical profession generally sensibly feel their great loss in his death, yet they greatly appreciate the memory they retain of his good works. The family and friends of the deceased doubtless have the sympathy of the whole community in their bereaved condition.

" Though our home is lonely,
And to us he ne'er can come,
In the future we will greet him,
When our journey here is done."

MEADOW LAWN, KY.

T. B. GREENLEY, M. D.

NOTE.—I am indebted to my friend, Judge Combs, of Shepherdsville, for the items in the history of Dr. Bates.

Notes and Queries.

NOTES OF INTEREST REGARDING THE COMING MEETING OF THE AMERICAN MEDICAL ASSOCIATION AT PHILADELPHIA.—The semi-centennial meeting of the American Medical Association will take place at Philadelphia on Tuesday, Wednesday, Thursday, and Friday, June 1st to 4th. The general meeting will be opened on Tuesday by the introduction of the venerable Dr. Nathan S. Davis, of Chicago, attended by the presidents of the State medical societies, and he will deliver an address, entitled "A Brief History of the Origin of the American Medical Association, the Principles on which it Was Organized, the Objects it Was Designed to Accomplish, and How far they Have Been Attained during the Half-Century of its Existence." The President of the Association is Dr. Nicholas Senn, of Chicago, and the First Vice-President, Surgeon-General George M. Sternberg.

It is expected that nearly three thousand delegates will attend this memorable meeting, and the profession of Philadelphia has made great preparations for their reception, not only from a social, but even more particularly from a scientific standpoint. Arrangements have been made for special courses at the various colleges so that delegates may, however briefly, become acquainted with recent medical processes. The committee in charge has found it possible to arrange for the general and sectional meetings to take place in the buildings situated within a single block on Broad Street, that is, that block extending from Locust Street to Spruce Street. The position of these various buildings, and of the different hotels which offer special rates to the members of the Association, is shown on the accompanying map, which may prove of much use to those readers of the Medical News who intend to be present at the meeting. At the southeast corner of Broad and Locust streets is situated the Hotel Walton, which will be the headquarters of the Association and in which three of the sections will meet. Immediately adjoining it to the south is the Broad Street Theater with a large seating capacity, which will be devoted to the Section of Practice of Medicine. Adjoining it to the south is the Hotel Stenton in which the meetings of the Section of Physiology and Dietetics will be held. Immediately opposite, at the northwest corner of Broad and Spruce streets, is the Beth-Eden Church, which, in addition to its ordinary accommodations, contains a large meeting-room. This building will be used by the sections of Obstetrics and Gynecology and of Neurology and Medical Jurisprudence. Immediately across from the Broad Street Theater is Horticultural Hall, a newly erected building, exceedingly handsome in its inside and outside decoration, the main hall of which will be devoted to exhibition purposes. This hall also contains two large meeting-rooms, which will be

devoted to the sections of Surgery and Anatomy and of Dermatology and Syphilography. Finally, the Academy of Music, immediately adjoining Horticultural Hall, and which is capable of seating nearly three thousand persons, has been engaged for the general meeting. Smaller rooms in the same building will be used for the sections of Diseases of Children, of Materia Medica and Pharmacy, and of State Medicine.

These places of meeting are also situated close to the College of Physicians at the corner of Locust and Thirteenth streets, an institution which has the largest medical library in the United States next to that of the Surgeon-General's Office at Washington. Most of the important clubs are also within a few hundred yards of the hotel headquarters. It will also be noticed that the meeting places are but three blocks away from the Broad Street Station of the Pennsylvania Railroad, and but four blocks from the Terminal Station of the Reading Railroad.

Several luncheons will be given each day under various auspices. The dinners of the various sections will take place on Tuesday evening at 7 o'clock, and on Wednesday evening the University of Pennsylvania, the Union League Club, Jefferson Medical College, the Academy of Fine Arts, and other institutions will hold receptions. On Thursday afternoon the Provost of the University of Pennsylvania, Mr. C. C. Harrison, will receive the delegates on the campus of the University, and several private lunches will also be given on the same day. The publishers of the Medical News, Messrs. Lea Brothers & Co., have invited the visiting delegates and their wives to a theater-party on Thursday evening, at the Broad Street Theater, at which refreshments will be served. On Friday the Philadelphia Medical Club will give a luncheon at the Hotel Aldine, and on that afternoon the meeting will come to a close.—*Medical News.*

ETIOLOGY OF FOLLICULAR ENTERITIS IN CHILDREN.—Finkelstein, of Heubner's clinic (*Deut. med. Woch.*, September 17 and 24, 1896), states that it is universally admitted that the majority of cases of gastro-intestinal enteritis are due to an infection. The source of the contagion lies in the stools. Two groups of the disease are to be distinguished, the dysenteric and the toxic. The actual cause of the disease must therefore be able to give rise to irritation of the mucous membrane, and to produce toxic products. The bacteriological examination of the purulent masses in the author's cases showed the presence of abundant rod-like micro-organisms contained in the pus cells, and varying much in appearance. Often they were arranged in twos. All the different forms were shown to belong to a single micro-organism. By cultivation a microbe possessing extraordinary resemblances to the *B. coli communis* in almost pure culture was obtained. The author then details his inoculation experiments. In mice it produced, when introduced with the food, a disease very like Loeffler's mouse typhoid. The morbid appearances corresponded exactly to those described by Heubner as taking place in the epithelium in cholera infantum, but ulcera-

tive processes were absent. The micro-organism is only present in the glands, and hence the death of the epithelium must be due to a toxic action. The bacillus is also able to produce remote toxic effects. Growth on potato showed differences from that of the *B. coli*, otherwise the differences were rather those of degree than of kind. Experiments on animals yielded more important results. Virulent cultures of the *B. coli communis* were shown not to be able to act pathologically on healthy mucous membrane. A close relationship existed between the bacillus in question with the bacteria known to produce the manifestations in meat poisoning. Thus it does not appear correct to class this micro-organism as the *B. coli communis*. The virulence of the micro-organism varies greatly, and can be diminished by culture. As regards its pathogenic properties, it was found constantly present in over fifty cases of typical enteritis and colitis dysenterica. All cholera-like forms must not be grouped as follicular enteritis. If the microbe has lived and flourished in the milk consumed, the symptoms of intoxication may begin forthwith. It may be said that follicular enteritis passes through the stages of dyspepsia, intestinal catarrh, up to a cholera-like disease. When the intestinal epithelium is destroyed, the bacillus may get into the blood stream and produce a septicemia as well as hemorrhagic purulent metastases. Mixed infections are common. There are two forms of the general infection: one resembling typhoid, and the other giving rise to high fever, collapse, and rapid death. Adults rarely suffer, although the bacillus has been found present in the intestine.—*British Medical Journal*.

THE CIRRHOTIC LIVER.—Dr. H. D. Rolleston and Dr. W. J. Fenton have made an interesting contribution to our knowledge of the natural history of cirrhosis of the liver in a paper (reprinted from the Birmingham Medical Review, October, 1896,) based on a careful analysis of 114 cases occurring in the pathological records of St. George's Hospital during the last ten years. These cases are divided into two categories, according as to whether the death was immediately due to the hepatic disease or due to intercurrent maladies. The analysis is strictly statistical, but it serves a good purpose in the correction of current misconceptions on the subject. As regards etiology it may be remarked that in a considerable proportion, fewest in those fatal from the cirrhosis itself and in those dying from pulmonary tuberculosis, no history of alcoholism was present. The comparative frequency of pulmonary tuberculosis is noted. On the other hand, in only three cases was death due to peripheral neuritis of alcoholic origin. It appears that although cirrhosis is more frequent in males than in females in the ratio of 5 to 2, its presence more often gives rise to symptoms in the latter than in the former. The average age of death was 48.1 years on all the cases, or 48.8 for males and 46.2 for females, those who died from the effects of the cirrhosis itself living somewhat longer than those dying from other causes. The paper is so full of concisely stated facts that it is not easy to select any especial points, but we may give the following extracts

from the carefully compiled conclusions based on this research: "Cirrhotic livers are, on the average, considerably increased in weight (65.59 oz.)." "The alcoholic cirrhotic liver is heavier than the non-alcoholic cirrhotic liver." "Alcoholic cirrhosis is commoner than non-alcoholic cirrhosis." "Malt liquors and spirits may both give rise to enlarged cirrhotic livers. Our figures, though scanty, are opposed to the view that beer necessarily or usually gives rise to an enlarged and spirits to a contracted cirrhotic liver. Fatty change was more marked, contrary to expectation, in spirit-drinkers' livers." "In women dying from the effects of cirrhosis a large liver associated with head symptoms and with little or no ascites is more frequent earlier in life, while later a small liver and ascites are often met with."—*Lancet*.

DEATHS OF EMINENT MEDICAL MEN.—The deaths of the following eminent medical men are announced: Dr. Andreas Anagnostakis, who is described as the Nestor of Greek Ophthalmologists, at the age of seventy-one years. He was born in Crete, but his parents removed to Greece while he was a child, and he studied medicine in Athens and practiced in a provincial town. In 1851 he obtained a scholarship from Queen Amalie, by means of which he was enabled to study in Paris and in Germany for five years. After his return he was appointed Professor of Ophthalmology in the University of Athens, and inaugurated there an important school in which the teaching of Helmholtz, Von Graefe, Donders, and others has been consistently carried out. Dr. Anagnostakis was for several years Rector of the University, where he was held in great respect.—Professor Gustave Braun, a well-known Moscow ophthalmic surgeon.—Dr. G. Limonceli, *privat-docent* of Mental Diseases in the University of Naples.—Dr. Margitot, member of the Paris Academy of Medicine.—Dr. Jaime Pi y Suñer, Professor of General Pathology in the Barcelona School of Medicine.—Dr. H. Engel, formerly Professor of Nervous Diseases in the Philadelphia Medico-Chirurgical College.—Dr. S. G. Moses, formerly Professor of Midwifery and Gynecology in the Missouri Medical College, St. Louis.—*Ibid*.

SERUM DIAGNOSIS OF TYPHOID FEVER.—Widal contributes (*Journ. de Méd.*, July 25, 1896,) some further details on this subject. He finds that the addition of one drop of the serum of an immune ass to 5 ccm. of a culture in bouillon of Eberth's bacillus in full activity, and of some days' duration, the bouillon immediately clears, and a precipitate is formed with the rapidity of a chemical reaction. If a similar culture be treated with the blood serum of a patient suffering from typhoid fever the reaction is not so marked to the naked eye, and the quantity of serum so added requires to be greater, namely, 6 drops of serum added to 4 ccm. of culture will give a marked reaction in from two to four hours, and the author suggests that in this way we have a means of ascertaining the degree of immunity possessed by the serum of a patient at different times, or that of

different patients, as it is possible to obtain a fairly constant standard by the use of serum from the ass. He finds that the following method is quite practical and easy of application. A finger carefully washed and dried is pricked with a lancet and allowed to hang down. About 1 or 2 ccm. of blood can easily be collected in a sterile pipette, which is plugged awaiting the separation of the serum from the clot, and one drop of this added to ten of a bouillon culture of Eberth's bacillus shows under the microscope a characteristic conglomeration. The author has also made observations on the serum of patients suffering from other diseases, and for this purpose he obtained serum from cases of acute and chronic nephritis, tuberculosis, pleurisy with effusion, pneumonia, catarrhal jaundice, cirrhosis of the liver, acute rheumatism, etc., and also from five patients having had typhoid fever, 1, 4, 5, 9, 14 years previously, and he found in all of these cases that Eberth's bacillus remained unaffected by the serum, being seen on microscopic examination quite separate and immobile. Comparative observations of the coli bacillus gave negative results.—*British Medical Journal*.

THE BABY'S BATH.—The hand is an unsafe guide by which to determine the temperature of the water. This should always be determined by the thermometer. A bath thermometer should therefore be a part of the equipment of every nursery. This consists of an ordinary thermometer of large size, set in a wooden case. The following table shows the proper temperature of the bath for various periods during the first two years:

| | |
|---------------------------------|---------|
| At birth, | 100° F. |
| During first month, | 97° F. |
| One to six months, | 95° F. |
| Six to twelve months, | 90° F. |
| One to two years, | 86° F. |

Soap employed for the baby's bath is of importance. Soap containing an excess of alkali may seriously irritate a child's delicate skin and predispose it to erythema or eczema. The best grade of white castile soap is the most suitable for baby's use. The oatmeal soap of a good make may also be employed. Dr. Griffith regards the German soap known as Basis Seife as the best. It can be obtained through most druggists. A dusting powder is not necessary when the skin is in normal condition and is properly dried after the bath. One of the chief objections to its use is the fact that nurses are prone to rely upon it, instead of taking proper care in drying the surface. When properly used there can be no objection to it.—*M. A. Practitioner*.

THE SEMI-CENTENNIAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—The semi-centennial meeting of the American Medical Association, which will be held in Philadelphia on the 1st 2d 3d and 4th of June, 1897, bids fair to surpass in the character of the entertainment, the scientific papers, and the number in attendance, any meeting which has hereto-

fore been held. The Committee in Charge have been able to obtain large and roomy places of meeting for the general meetings and the Section meetings, all within a single block and within very short walking distance or immediately adjacent to the largest and most comfortable of the Philadelphia hotels.

For the week preceding and following the meeting the Committee of Arrangements have also arranged for clinical courses which will be open without charge to all physicians who may visit the city at that time. These courses cover every branch in medicine and its specialties, and will afford visitors the opportunity of seeing the active clinical work of all the great teachers of Philadelphia, which is now, as it has been for so many years in the past, in every respect the medical center of the United States.

THE CAUSATION OF INSANITY.—The Times of Saturday, May 1st, in alluding to the Holloway Sanatorium, contains the following remarks based upon the annual report of the medical superintendent, Dr. S. Rees Phillips: "Worry was, as usual, the most potent cause of insanity; alcoholic intemperance played a very secondary part. Dr. Clouston, of the Morningside Asylum, Edinburgh, had convinced himself that more insanity was due to alcohol than any other cause. Dr. Phillips' observations tended to show that in England alcoholic intemperance was as often a result as a cause of insanity." These are startling assertions, and the opinions here expressed are undoubtedly opposed to the views held by most alienists. The term "worry" is evidently used in a very comprehensive sense, and seemingly embraces nearly all the causes of insanity denominated "moral" in the tables of the Medico-Psychological Association. Regarded from this standpoint alcohol may rank as a less important cause, but it is generally believed that alcohol and heredity bulk very largely in the causation of insanity. The view that alcoholic intemperance is as often a result as a cause of mental disease will not, we think, meet with much support.—*Lancet*.

TWO THOUSAND GALL-STONES.—At a recent meeting of the Toronto Medical Society Dr. J. F. W. Ross presented a large number (probably two thousand) of gall-stones which he had removed on the date of the meeting from a clergyman. The calculi varied in size from a grain of sand up to a small bean. They were black in color and faceted. The patient had been prepared for operation before at Johns Hopkins, but as his colicky attack passed away upon the administration of olive oil and the phosphate of soda, operation was deferred. On the 21st ultimo, the patient had a sharp attack of colic—the two hundredth—and was anxious for operation. The attacks latterly had been accompanied by fever and jaundice. Dr. Ross described the technique of the operation. The stones were partly removed with a scoop and partly washed out. The gall-bladder was fastened into the wound and a drainage tube inserted. The case was progressing favorably at the time of reporting.—*The Canadian Medical Review*.

ALBUMINURIA IN GONORRHEA.—Colombini (*Suppl. al Policlinico*, 1897,) has made a study of this subject in three hundred and seventy-two patients suffering from acute gonorrhea, seventy-two being complicated by epididymitis. In none of the cases had any drug been administered, and there was no evidence of cystitis or any disease likely to cause albuminuria. The pus was carefully filtered off, and five different tests for albumin were applied to the filtered urine. Out of the three hundred and seventy-two cases albuminuria lasting from four to thirty days was found in sixty-six, and of these forty-two had epididymitis, twenty-four simple gonorrhea. The author believes that an ascending nephritis could be excluded in his cases as also the influence of any drug, and on the whole he considers that the albuminuria was due to a process of general blenorrhagic infection, comparable to that which occurs in other infectious fevers.—*The British Medical Journal*.

FORMALDEHYDE solution in alcohol has been praised by Rosenberg (*Deutsche med. Woch.*) as a disinfectant. The vapor given off is said to be specially valuable for the disinfection of rooms. In pertussis and phthisis it is claimed to give relief from attacks of embarrassed respiration. Meat, eggs, and other articles of food exposed to the vapor and then covered with a thin layer of the solution will keep for months free from putrefactive changes, but their value as food can not be said to be improved by the process.

ETHICS.—The code governing Paris societies says: "It is good confraternity to accept the consulting physician desired by the family, no matter what his age, his grade, or his situation, providing his personal honor and regular professional standing are not in dispute."

AMALGAMATION OF MEDICAL COLLEGES.—According to the Medical Record and New York Medical Journal of recent dates, the Bellevue Hospital Medical College has joined forces with the Medical Department of the New York University.

WE NEED THE SAME.—In Germany a law is said to exist which holds the newspaper as well as the advertiser responsible for assertions made. If a promise to cure is held out and the remedy fails, prosecution is liable to follow.

ACUTE URETHRITIS.—At the out-patient department of Roosevelt Hospital we use as a routine practice the internal administration of five grains of salol every three hours, and we think that it does good.—*Moulton*.

MEAT DIET.—The annual consumption of flesh for each inhabitant of the United States is 120 pounds; Great Britain, 105 pounds; France, 74 pounds; Germany, 69 pounds.

Special Notices.

AN EXCELLENT ASTRINGENT FOR NASAL CATARRH.—In cases of nasal catarrh, characterized by a profuse secretion of irritating mucus, much relief can frequently be afforded by the application of astringent remedies. Tannic acid would be a good astringent in this condition if it were not so often irritating to the delicate nasal mucous membrane, provoking sneezing and other discomfort. The new astringent known as tannigen is, however, free from these disadvantages. It acts mildly, yet effectively, even when employed in its pure state. Dr. Walter A. Wells, of Washington, D. C. (*Medical Bulletin*, April, 1897), who has used it extensively in post-nasal catarrh, says: "Tannigen in all the cases in which it has been used proved highly beneficial in relieving the engorged and edematous state of the mucous membrane and in markedly influencing for the better the most distressing symptom, the abnormal secretion of mucus. It was employed by me both in solution and in powder form, always preceded by thorough cleansing of the post-nasal space by an antiseptic alkaline spray. As a solution I used a three-per-cent strength in five per cent of phosphate of sodium. As an insufflation I recommend the following: Tannigen, four drams; bismuth sub. carb., three drams; amyli, two drams." A combination of tannigen and euophen was also used as insufflation after canterization in the nose with the result that reaction seemed to be of shorter duration, while in epistaxis the same application also had an excellent effect in controlling the hemorrhage.

SPURIOUS COCA WINES.—The *British Medical Journal*, in its issue for January 23d and again in that for February 6th, speaks of the dangers that attend the popular use of so-called coca wine—that is, some kind of wine in which a salt of cocaine is dissolved. For the most part, the wine is of poor quality, but sweetened and highly fortified with rectified spirit. The amount of cocaine contained in many of these products is variable too, and in prescribing them one really does not know what doses of that drug he is ordering. Moreover the contention seems reasonable that the tonic and stimulant virtues of a real wine of coca—such, for example, as the well-known *Vin Mariani*—do not depend altogether upon the cocaine obtained in it.—*New York Medical Journal*, March 20, 1897.

SANMETTO IN BRIGHT'S DISEASE.—Charles F. Reiff, M. D., of Freemont, O., writing, says: "I prescribed Sanmetto in a case of advanced Bright's disease. The patient became more comfortable, and since then has used several bottles of Sanmetto. In my opinion Sanmetto is the most efficient remedy for diseases of the genito-urinary organs, and shall continue to prescribe the remedy."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

TUMORS OF THE ORBIT.*

BY WILLIAM CHEATHAM, M. D.

Professor of Diseases of the Eye, Ear, Nose, and Throat in the Louisville Medical College.

Tumors of the orbit may be malignant or benign. They may be primary or secondary, that is, metastatic, or extend from some of the surrounding tissues, such as an encephalocele, nasal polyp, tumors of the lid and skin, eyeball, aneurisms, etc. I think Berry's classification of orbital tumors the best, which is as follows: (1) Tumors of the bony wall of the orbit, osteomata or ivory growths of the orbit, which are very rare, about one in 15,000 cases of eye diseases, or twelve cases in 184,000. Orbital tumors are not common, as Billroth reports 2,058 tumors, with only eighteen in the orbit. Berry mentions (2) Vascular tumors of the orbit, such as nevi cavernosus, sanguineous cysts or hematoma. (3) Tumors of the connective tissue, which are either simple or malignant. I am sorry to say the latter are the most common. The simple tumors are cysts, dermoid, hydatid, or the result of cysticerci. I have seen one or two cases of simple cysts of the orbit in children, and one dermoid. Dacryops, the result of distension of a lacrymal duct, is occasionally seen, but I think can hardly be considered as belonging to the orbit, a few cases of lymphadenomata have been reported non-malignant. The malignant growths are mostly sarcomatous; fibro-sar-

* Read before the Louisville Medico-Chirurgical Society, April 16, 1897. For discussion see p. 457.

coma, and myxo-sarcoma, carcinoma from metastases, or of the lacrymal gland are occasionally found. Primary sarcoma of the orbit is usually non-pigmented. Pigmented sarcoma is usually an extension from an intra-ocular growth. From the lacrymal gland we may have growing adenoma, sarcoma, carcinoma, or cysts; none of them are common. (4) Tumors of the optic nerve which Leeber divides into essential, those springing from the nerve itself, and non-essential, those springing from the sheath and involving the nerve secondarily. These growths are rare; their progress is slow; they are usually myxomata or neuromata when essential or primary tumors. In diagnosing tumors of the orbit, exophthalmos, which is quite a constant symptom, its direction, extent, rapidity of occurrence, mobility of the eye, palpation, auscultation, and history of previous condition of patient, with sex and age, will be found of much importance. By palpation we can sometimes tell the location of the growth, whether firmly attached or not, the consistency of the growth, whether or not pulsation is present, whether the surface is bosselated, smooth, or rough.

By auscultation a bruit, if present, can be made out. The nose, vault of pharynx, roof of mouth, and all the accessory sinuses of the nose should be examined. When we have an exophthalmos, with the eye looking straight out, and are not able to feel a growth, we should suspect the growth to be of the optic nerve or at least within the cone-shaped space formed by the straight muscles of the eye. If the exophthalmos is rapid the growth is more likely malignant, and especially if, with this, the vessels of the lids and those surrounding the eye are much increased in size. I am of course only generalizing, as to go thoroughly into this subject would take up more time than we wish to give. If the exophthalmos is sudden it is hemorrhagic probably, or from some other involvement of the circulatory system.

Angiomata are congenital. A specimen of tumor of the orbit I wish to present to-night comes under the head, I think, of secondary, as it was in my opinion originally one of the choroid. A majority of the malignant growths of the eyeball springing from the uveal tract and the retina, those from the former being usually pigmented and leuco-sarcoma, and from the latter glioma, which is a disease of childhood, never having been seen, I believe, in a person over sixteen years of age. Melano-sarcoma of the choroid is nine times as common as leuco-sarcoma, the latter occurs more often in the anterior part of the choroid; the sarcomas of the uveal tract are both spindle- and round-

celled, the latter the most malignant. Fuchs says of 259 cases of sarcoma of the uveal tract, six per cent were of the iris, nine per cent of the ciliary body, and eighty-five per cent of the choroid. Sarcomata of the choroid occur more often at or near the posterior pole of the eye, where the vessels are the largest and may break through the sclera at almost any point, but usually anteriorly where it is the thinnest. Usually, after breaking through, it grows rapidly and scarcely ever involves the bone. Glioma usually extends along the optic nerve, or breaks through the cornea. The communication between the external and the internal growth is sometimes so exceedingly small as to be difficult to make out; if there is an external and an internal growth, the internal is the primary. The lymph glands in the neighborhood of the eye are not involved in uveal sarcoma, so metastases must be through the blood. Time again prevents me from saying much just here that would be of great interest. I will say though that sarcoma of the choroid is a disease of advanced life usually, very seldom occurring under twenty years of age, and much less frequently under ten years, 11 in 259 before ten, and 27 before twenty, according to Fuchs. It is rarely bilateral, and equally divided between the sexes. The diagnosis with the ophthalmoscope is not always easy, as detached retina and a muddy vitreous often come early, and the patient very seldom reports early in the affection.

Glioma of the retina is, as I stated before, a growth of childhood. At present it is considered to spring from the delicate connective tissue of the neuroglia, and ought therefore to be considered a sarcoma. I have seen a good many cases of glioma of the retina. They are likely to be mistaken for a so-called pseudo-glioma, which is usually an exudation posterior to the lens or a suppurative choroiditis. There are usually enough points in differentiation, such as position of lens and iris, color, and previous history, by close study of which the proper diagnosis can be made.

I have seen one family with four or five healthy children, then three with glioma of retina (with three deaths), then healthy children born. I saw both eyes of a child removed by Dr. Agnew for glioma of the retina; the child was living the last time I heard from it, some years following the operation. Pathologically it resembles so closely the round-celled sarcoma, as in this case of mine, that it is difficult to differentiate. Dr. J. A. Flexner makes the specimen I present tonight a round-celled sarcoma. Looking at the specimen, it seems to be a

diffuse growth of the choroid. Spreading posteriorly as it does—not from the optic nerve, although the optic nerve is infiltrated with the same character of cells, and not through the cornea as glioma usually does—I think it must be a case of round-celled sarcoma, which is rare in so young a subject. Hirschberg believes the first beginning of a glioma of the retina congenital. In glioma the glands around the eye are occasionally involved. I enucleate in glioma, with some hopes of no recurrence if the tumor is still confined in the sclera, or that, should it recur, it will do so in some distant organ, especially the liver, so that death will be more rapid, easier, and not such a shock to the relatives. Many pages can be written on this subject, but again, I say, time is too brief.

As to the prognosis of tumors of the orbit, I will read an extract from a paper by Dr. Charles S. Bull, of New York, read before the American Ophthalmological Society, at New London, in 1896. These conclusions are from thirty-six cases seen by Dr. Bull in his own practice. In the same number of the Transactions of this society were reported a case of glio-sarcoma of the retina, melano-sarcoma of the ciliary body, primary sarcoma of the iris, two cases, multiple round-celled sarcoma of the bones of the orbit, cranium, and right femur, carcinoma of the choroid, metastatic sarcoma of the choroid, and one case of ivory exostosis of the orbit. Dr. Bull says:

The tendency to extension outward and forward of these tumors may perhaps also explain the increased rapidity of their growth after exenteration of the orbit, or after the more radical operation of exsection of the diseased bones. The empty orbit or the cavity left in the face by the removal of the diseased bones are free spaces toward which there is no resistance to the extension of the neoplasm, while backward or upward its progress is hindered by a bony wall of varying thickness, in which absorption goes on slowly, even when the periosteum has been removed.

These brief remarks and the conclusions which follow are based upon the histories of thirty-six cases, all taken from private practice of the writer, as it has been proved that patients in private practice can be more satisfactorily followed up than those in hospital practice. All these cases have been watched from start to finish by the writer, and the course of the disease and the results of operative interference may be read in detail in the accompanying histories of the cases. In a much larger experience, extending over a period of twenty-five years of hospital service, the same conclusions have been forced upon the writer.

Conclusions. 1. The prognosis of all forms of malignant orbital tumors, whether primary or secondary, is unfavorable; and if the tumor be primarily one of the deep facial bones or their sinuses the prognosis is positively bad.

2. Except in the case of encapsulated tumors of the orbit, surgical interference is almost invariably followed by a return of the tumor, and the growth of the secondary tumor is more rapid than that of the primary lesion. With each succeeding operation the period of quiescence in the return of the tumor grows shorter and the rapidity of the growth increases.

3. The patient's family, and in certain cases the patient himself, should in the beginning be told of the serious nature of the trouble, and be warned that complete removal of all the diseased germs is a well-nigh hopeless task. The burden of the decision as to surgical interference must rest upon the shoulders of the patient.

4. Repeated operations in these cases undoubtedly shorten the life of the patient. While it is therefore our duty to operate in all cases in order to relieve severe or unbearable pain, we should be slow to operate merely for the sake of relieving temporarily physical disfigurement or deformity, especially if we are convinced that by so doing we shorten the life of the patient, even if that shortened life is rendered more bearable to the patient.

Some of the gentlemen present remember a case which several of us operated upon at different times, some of us two or three times, in the person of a colored woman, with a favorable result I think, at least for some years. My case, the specimen of which I show here to-night, was in a little boy four years old, with the following history: Last October a reddish speck was seen deep in the left eye. About Christmas he had great pain in left eye, this increased until morphine had to be given; in the last three weeks the eye has become exophthalmic and enlarged. It is now extremely painful—this was March 22d. The blood-vessels of the lid were increased in size and tortuous, the cornea was opaque or opalescent, the aqueous humor and iris were very muddy in appearance; the eye was enucleated, March 23d. The operation was not of course done as the usual enucleation, as the aim was to remove the whole contents of the orbit. It will be observed that I did not get back quite far enough and cut through the growth; the remainder was removed by a strong pair of curved scissors and the finger. The growth broke down under the finger like a blood clot; it was very soft.

The specimen is a very interesting one. The lens was opaque. The globe is about normal in size; the center of the globe is occupied by the detached retina and an organized exudate or lymph. The choroid is much thickened; the sclera is apparently whole. The growth envelops four fifths of the globe. The optic nerve is buried in this mass, but not attached to it firmly. Prognosis of course exceedingly unfavorable. June 16, 1897: Growth returned in four weeks.

**A PLEA FOR A BETTER KNOWLEDGE OF MATERIA MEDICA
AND THERAPEUTICS ON THE PART OF THE
COUNTRY DOCTOR.***

BY W. R. BURR, M. D.

"Nothing is more estimable," says Voltaire, "than the physician who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which will benefit it, and exercises his art with caution."

This is pre-eminently an age of advancement along all scientific lines, and in none is there more progress being made than in the science of medicine. Medical colleges all over the land are requiring better preliminary qualifications of their matriculates, are extending their course and demanding a higher standard of medical scholarship. The trend of medical education is in the direction of thoroughness in all its branches. "Diploma Mills" are becoming extinct and first-class institutions are meeting with the success they merit.

Under the present surroundings, when investigation is the order of the day, and enlightenment on all subjects is so near at hand and so easily acquired, there is no excuse for ignorance and incapacity on the part of any who essay to practice the healing art, the most responsible of all vocations.

The physician of to-day should be abreast with the times and traveling in the forefront of the procession. He should understand the ground-work of his profession, be well versed in the theory of medicine, skillful in diagnosis, proficient in his knowledge of materia medica, and practical in the application of remedies to cure and to alleviate diseases.

The average country doctor keeps as well abreast with the times as his city brethren, but there be those among us who, whatever may be their acquirements in other branches of medicine, are wholly deficient in their knowledge of materia medica and therapeutics. They may be able to dilate upon fine-spun theories and perhaps make a satisfactory diagnosis, but when it comes to applying the proper agents to the removal of cause or amelioration of suffering, they are all at sea and "go it blind," giving remedies of whose origin they know little, and of whose action on the human body they know less. Some of them are

* Read before the Southern Kentucky Medical Association, Hopkinsville, April 14 and 15, 1897.

not even as practical as the old Arkansas doctor, who understood the treatment of fits, and always threw the patient into them for that reason. Some country doctors do not know how to treat one or two affections intelligently.

Many of us are apt to neglect, as of minor importance, the study of remedial agents. I am dealing in this paper exclusively with the country doctor, "one of whom I am which," and can speak of him *sans ceremonie* as it were. I know that there is a need among us of a better understanding of materia medica and the application of remedies. City doctors, as a rule, are better up on drugs, their uses and abuses, than many of us who live in small towns and country cross-road places. Their environments are such that they absorb a great deal of information on the subject. And since they can, by a late device, light the human body up with electricity and discover beyond doubt if there be any thing wrong with the workings of its machinery, they of course can get marvelous results in treatment and discount the back-woods dispensers of pills and powders.

But what boots it if a doctor is able to make a high-sounding diagnosis, if his knowledge of materia medica and therapeutics is below par or slips an eccentric? His patient is likely to take passage on Charon's boat, despite his ability in discovering his ailment.

One who has had experience in a country drug store can appreciate the need of more enlightenment on the subject of materia medica. The country druggist gets many cipher dispatches that are deep, dark mysteries, as difficult of interpretation as the hieroglyphics, and some of them are ludicrous in the extreme. An apothecary friend of mine got one not long since which, being interpreted, read as follows:

R Bchlорide mercury, gr. i;
Tr. benzine comp., oz i.
M. Sig: Apply to eruption once a day.

He informed the learned M. D. that there was no such thing as tincture of benzine, and lost his good will and patronage for his pains. The doctor clung to it to the last that there was such a tincture, and that it was exactly what he wanted in the prescription. He had said the horse was sixteen feet high, and was going to stick to it. What he really wanted was tincture of benzoin comp. And yet there are people among that disciple's clientelè who imagine that he could give pointers in medicines and their administration to Bartholow or Shoemaker.

"Physicians mend or end us;" and as the laity are not apt to know

when the physician is prescribing with intelligence, ignorance on his part of his armamentarium is apt to result in dangers dire. It were infinitely better for the doctor's patients that he follow the poet's advice and "throw physic to the dogs" than to be dosing them with drugs about which he knows as little as the latter day politician does about economics or the science of government. The doctor should thoroughly understand the remedies he exhibits to those whose lives are intrusted to his care. He should be able to, "In requital ope his leathern scrip and show us simples of a thousand names, telling their strange and vigorous faculties." He should know the origin, physiological, pathological, and toxicological action of all the drugs used in combating disease and death, and should have the common sense and ability to apply them. He ought to know the antidotes and antagonists of the toxic medicines, and have the ready tact to administer them properly in emergencies. He should understand the different methods of preparing the remedies he uses, and be conversant with the compatibility of the various drugs. In short he should master *materia medica* and all applied physical methods.

Unless we understand every action of a drug, the various effects produced by different doses and by the different modes of administration, we can not prescribe it as we should. Take, for instance, digitalis, a much-used and often misused remedy. It is potent for good or harm, according to the circumstances under which it is given, or the skill or ignorance with which it is administered. It is important that the doctor be well acquainted with it, and not give it in a haphazard, empirical way, else he may do incalculable harm with it. It is an excellent cardiac stimulant, giving tone to the cardiac motor ganglia, but full doses continued depress these ganglia and paralyze the heart. In mitral disease it has its most efficient use, and where there is patulency and regurgitation there is no dose to the experienced physician. He feels his way with it until compensation is established. But large doses in typhoid fever or pneumonia, where the heart is weak, would be likely to prove fatal. Small doses are to be used in functional disturbances of the heart; or, better still, we could use *strophanthus*, which does not contract the arterioles, or caffeine, or *cactina*.

Strychnine is one of the most valuable remedial agents we possess, and it is growing in favor. In small doses it is a tonic *par excellence*, stimulating the heart and nervous system; but in large doses it overstimulates, and is one of the deadliest poisons.

We should be aware, too, of the part idiosyncrasy plays in the administration of drugs, as can be illustrated by morphine. A small dose may have a happy, soothing effect on one patient, while another may be rendered wakeful, nervous, and nauseated by the same size dose. Large doses may be borne by some, and small ones may produce toxic effects in others. We should understand also that pain is an antidote to opium and its alkaloids. The patient should be studied, for "what is one man's meat is another's poison."

Dropping into routine in therapeutic measures should be avoided. We are apt to form habits that cling to us like barnacles of the past. Hobbies are great hinderances to progress in the treatment of "the ills that flesh is heir to," and the doctor who rides old and jaded hobby-horses, and thinks no good can come from using "new-fangled" remedies, must necessarily fall behind the procession and get irretrievably lost. The medical crank, like Cervantes' hero, cavorts about, booted and spurred, on his Rozinante, charging wind-mills and making himself a stumbling-block to the advancement of his compeers.

The intelligent, progressive doctor is always ready to accept that which is new and good, but he is also conservative and tries to

"Be not the first by whom the new is tried,
Nor yet the last to lay the old aside."

He does not boast of a catholicon for every ill, nor is he led off by fads and fakes; he does not indulge in such dreams as did Paracelsus and the alchemists, nor does he fondly hope a fountain of youth will be discovered by some visionary and wandering cavalier; but strives to know and be able to use the material and useful means of curing the sick and alleviating human suffering.

There has been a great revolution in pharmacy in the past decade or two, and in making many preparations there is no end. The nauseating mixtures of other days have been replaced by elegant and palatable preparations, and the bolus that the old-school doctor poked down the neck of his patient has become obsolete, and in its stead we have the gelatine-coated pellets of active principles.

We can not afford to confine ourselves to any one system of administering remedies, but should seek for those that are best, and give the results, regardless of system or theories. There is good to be found in every method and practice, and we ought not to confine ourselves to the narrow limits of any "pathy." Let us avoid the Hahnemann Scylla on the one hand and the Allopathic Charybdis on the other. We owe it to

our patients to give them the advantage of the best remedies and applications extant. And we should see to it that the drugs we use are pure and stable, and boycott the druggist who presumes to substitute Cheap-John medicines for the ones we specify.

The successful doctor is the one who gives his patient that which will make him himself again or alleviate his suffering. As a recent writer has aptly said, "The one desire of sick people is to get well; they care nothing for the science of medicine abstractly speaking."

But the field in which the country doctors have to labor is, I know, a broad one, and it is always very much overcropped; still most of us could be more assiduous in acquiring medical knowledge than we are. Most of us waste too much time in dipping into political discussions and the gossip of our community. We are too little given to "burning the midnight oil" and exercising our brains over practical matters pertaining to our profession, and too much given to lying awake nights, concocting schemes to euchre some fellow practitioner.

Let us get out of the ruts and form habits of close observation, industry, and study; especially let us get a more thorough knowledge of the drugs we administer to our patients, for they were infinitely better off if left to time and nature than to a doctor who is ignorant of *materia medica* and therapeutics.

AUBURN, KY.

MEDICINE, ANCIENT AND MODERN.*

BY R. W. BOWLING, M. D.

When in the course of passing events it becomes one's pleasant duty to express thanks for open-handed hospitality or a cordial welcome, then how inadequate is the stumbling tongue, how painfully slender do we find our stock of symbols wherewith to speak our thoughts! Yet I feel that I voice the sentiment of these physicians here assembled when I say that it gives us a peculiar pleasure to be welcomed by the people of this grand old city.

Had our association sought to find the loveliest city in our Commonwealth, they would have cause to be proud of their success; had they meant to pitch this meeting in the busiest and most enterprising

*A response to the address of welcome to the Southern Kentucky Medical Association, Hopkinsville, April 1, 1897.

city of the South, they would have cause to congratulate themselves; had they desired to ferret out that place which contains the greatest number of Kentucky's lovely women, they should be given the laurel wreath. They did intend to find hospitable and kind-hearted people, within whose midst they might assemble and discuss such new ideas as might subserve the general good; and surely your warm welcome proves their foresight. Let not your minds be uneasy; not a physician has brought with him a single drop of those vile and bitter drugs with which they are wont to call down upon themselves the anathemas of their patients; not a surgeon carries even a thumb-lancet; for the time being we are willing to accept Macbeth's advice, "Throw physic to the dogs, we'll none of it."

Since the time of long ago, when Doctor Satan induced Mother Eve to gulp down that bitter dose, the "forbidden fruit," there have been doctors and doctors, those false charlatans who imposed upon the credulity of the human family—who recognized the potent effect of mind over matter, and that there existed many diseases, the natural fruit of imagination lingering too long upon self and its ailments—and those true, sincere workers who have striven by slow degrees, step by step, to build up a science which could successfully combat that cruel, creeping demon, Dread Disease. Back in the early morning hours, when the hand of man inscribed upon his papyrus roll the first faint lines of history; when the first stone-laden barge of the pyramid-builders came pushing through the tangled reeds and lotus-flowers of the Nile; when Isis and Osiris were yet new and untried gods, there were those who essayed to soothe the suffering and to bring rosy health back again by means of amulets and incantations; others there were, obscure and unpretentious men, who walked hand in hand with Nature, striving to learn from her the secret antidotes the Creator had prepared for disease-poisoned man. Later, when Babylonia arose like a beautiful Naiad from the brimming fountain's midst; when her gilded turrets showered down upon her white-robed populace the broken and variegated rays of a beaming sun; when the delicious melody of her minstrels floated lazily among the flowers of her hanging gardens, where scented breezes toyed with dark-eyed Houris' witching tresses, there the astrologer sat at night beneath the cloudless skies, and pretended to gather knowledge wherewith to cure the ills that human bodies bear; and there too, down by the muddy banks of the Euphrates, in some unsought and lowly hut, the sage who loved his fellow-men lived and

strove by the sublime alchemy of perseverance to shape into form the thoughts gathered by the delvers of the past, that men might live.

In the days when Greece was great; when from Sparta came those heroes who repelled the Persian hosts; when at Athens Plato taught; when Demosthenes scorched the souls of men with the fire of his eloquence; when from Mount Olympus' heights descended the rolling thunders of great Jove's anger, there flourished the Delphian Oracle, at the gate of whose temple the sick were brought and laid, that pandering priests might come with their false words and worthless healing balm of Apollo's own compounding—in this hour arose the father of our science, Hippocrates, who, gathering together the golden sands of knowledge which had washed down the River of Time, worked them over in the crucible of his mighty brain, and behold! our science was crystallized.

When from her seven hills Rome looked out upon a world all her own; when great Cæsar marched conquering hosts from sea to sea; when Nero lived in such vicious splendor as that the world has not yet ceased to wonder; when her dazzling sun had set behind the western slopes—all this time the augur stood, and, peering into the skies, waited for a flight of birds as an omen wherewith to portend the fate of those who lay sick and dying—still were the earnest disciples of our science struggling for greater wisdom and for greater powers.

In those dark, medieval days, when in cloistered cell cowed monks strove to keep alive the flickering spark of learning, the Father of Men kept watch and ward over our art, that it might live through those trying times, then rose the sun of our modern epoch, and it was glorious day; the empyric crushed spiders for his deluded patient, but Galen, Harvey, and Jenner were born; the surgeon yet cut the limb from the body with a blow and staunched the blood by searing with heated iron, but Morton and Simpson blessed poor humanity by the discovery of anesthetics; the madstone was sought far and near when some one had been bitten by a rabid dog, and, being found, became only a hope to those who stood by and watched the agonies of death by hydrophobia, but Pasteur, by years of earnest research, has eliminated this danger, has cut off this tentacle of the octopus, Death. To-day we have our antirheumatic rings, our electropoise, our magnetic healer and our osteopaths, but, thanks to the unfailing result of perseverance, our sincere and earnest brethren have given us antiseptics, that we may cut, when necessity demands, without danger; have taught us to laugh

at diphtheria; have given us an abortive method wherewith to cut short the dragging days of typhoid fever; and we can prophesy, without boasting, that before many years—perhaps before the nineteenth century shall have tottered to its grave—we shall be able to throttle that most cruel and deadly disease, tuberculosis. We hope not to defy Death, for he must conquer all; we hope not to re-create the shattered vase, but by skillful aid to make it hold again the sparkling wine of life:

“When Nature will not work, then art is void,
For physic can but mend our crazy state;
An old building patch—not a new create.”

To our friends of Hopkinsville I would again say that these earnest and sincere men have met here to profit by an interchange of ideas; to sharpen their lances, that they may go forth, like Saint George, and drive back the fiery-nostriled dragon, Disease, and rescue poor pallid-cheeked humanity, who was fastened to the grim rock of mortality by our father Adam, and to hasten that glad time when man shall walk peacefully through life's declining years full of ease and free from ills, ready with smiling face to lay down from his aged and weary hands the burdens of life. Friends, accept our grateful and hearty thanks for your cordial welcome. May Esculapius teach his disciples to lead you into the paths of health; may Hygeia make this city her home. May peace and happiness be your household gods, your Lares and Penates ensconced on either side your glowing hearths; and may the Eternal Father fill your hearts ever with as much sunshine as you have this day put in to ours!

THE ACTIVE PRINCIPLE OF THE THYROID.—Spoto (*Giorn. del l'Assoc. Napol. di Medici e Naturalisti*, anno vi, 526,) believes the chief function of the thyroid is antitoxic, for, as the result of his experiments on dogs, he found that after removal of the thyroid the urotoxic coefficient rose to nearly double. The toxicity of the blood serum also increased after thyroidectomy. The thyroidin of Baumann, when given to athyroidized dogs, caused the urotoxic coefficient to return almost to the normal, and relieved most of the nervous symptoms. Glycerine extracts of the gland were, however, much more effectual in treatment, especially with regard to the wasting, over which symptom thyroidin had very little effect. Hence the author concludes that although thyroidin is doubtless one of the active antitoxic principles in the thyroid, there are probably other derivatives of therapeutic value which have not yet been isolated.—*British Med. Journal*.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated meeting, April 16, 1897, S. G. Dabney, M. D., President, in the chair.

Facial Neuralgia with Chorea of the Opposite Side. Dr. William L. Rodman: This gentleman, Mr. B., aged forty-one years, was sent to me from Winchester, with the following history: He has had intractable neuralgia of the fifth nerve, right side, for the last fifteen months. The paroxysms when they occur are very severe, he then gets better for a time, but soon has another attack. He has taken every thing in a medical way for relief of his trouble, and while of course his symptoms are more or less ameliorated while under treatment, still he feels he has lost so much time on account of his neuralgia, and has suffered so much, that he has come to the conclusion, as has also his physician, that a neurectomy should be done.

It is also proper to state that he has choreic movements of the left side of his face, which condition has existed for seven years, but there is no pain on the left side. The painful area on the right side is co-extensive with the distribution of the fifth nerve, well up on the scalp, over the eye, upper jaw, lower jaw—in fact, he was led to think on account of the location of the pain that the neuralgia was due to defective teeth, and had nearly all of his teeth on the upper and lower jaw of that side withdrawn. Extraction of the teeth, however, was not followed by relief.

There is no specific history in the case, as I inquired very closely in regard to this feature. There is no demonstrable central lesion so far we can make out. The patient has never had rheumatism or gout, but he did pass about two years ago a renal calculus of small size *per urethram*. Since the passage of this calculus he has had no bladder or kidney symptoms.

I would like for the members to examine Mr. B. carefully, and then in discussing the case state whether or not they would advise a neurectomy; and, if so, whether the intracranial operation would be best, or whether it would be as well to remove the terminal ends of the fifth nerve, as the supra-orbital or infra-orbital branches, or to remove Meckel's ganglion, or the otic ganglion, or both.

There have been no eye symptoms, and his reflexes are normal. After a careful examination of the patient, and he has also been examined by several other capable medical men, among them Doctors Marvin and Weidner, I am of the opinion that nothing less radical than the Hartley-Krause operation, with removal of the Gasserian ganglion with the superior and inferior maxillary branches of the fifth nerve, will avail any thing in this case. I do not feel that simple neurectomy of the supra-orbital or infra-orbital, or even taking out the otic or Meckel's ganglion would be of any permanent benefit, and it seems to me that the Hartley-Krause operation is the procedure indicated in this case. I would like, however, to have a free discussion, as I am open to conviction. In going about the Hartley-Krause operation, as you know, it is necessary to lift up the temporo-sphenoidal lobe of the brain, find the superior and inferior branches of the fifth nerve, resect these, and remove the Gasserian ganglion itself.

I have personally seen nothing but failure follow all extracranial operations, and am convinced that intracranial neurectomy is the only reasonably certain method of relief to this class of sufferers.

Discussion. Dr. A. M. Cartledge: This is a case that ought to be studied very carefully before any operative steps are undertaken. From the superficial examination I made, I would hesitate to open the skull and perform the operation suggested. My idea of chorea, especially when it is unilateral, is that it is due to cortical irritation. I believe, whether it can be demonstrated or not, that such is the case, and I should be very strongly inclined to think that cortical irritation was responsible for the choreic trouble in this case, and I am also strongly inclined to believe that there is some connection between the choreic trouble on the right side and the neuralgia on the left; in other words, that the original trouble was chorea, and that the neuralgia he now has on the left side is dependent in some way upon that. I think, if an operation is decided upon, it should certainly be intracranial, but I would make the section posteriorly over the zygomatic arch, because I am impressed with the fact that this gentleman has a central lesion, and that further back than this there was some cranial trouble, and now it is not a typical neuralgic condition about the ganglion, but probably extending down and involving that point. The probable location of the irritation is in the meninges of the left side. His pain is not that characteristic and typical of neuralgia in this region. For instance, he

has no neuralgia of the supra-orbital branch; he has no characteristic neuralgia of the infra-orbital branch; he has no conjunctival congestion, etc. Still his greatest pain is along the hair margin, back nearly where we would expect it in neuralgia of the fifth nerve.

The history is that he has had the choreic manifestations on the left side for seven years, and the pain on the right side has been noticed for only fifteen months, which now seems to involve the nerve. This pain seems to be very superficial in character, and I am impressed with the fact that the cause of the trouble on the right side is simply a continuation of the cause of the chorea on the left side. Of course in this I may be wrong. I agree with Dr. Rodman that an intracranial operation is indicated, and it may be that the ordinary Hartley operation will relieve the trouble, but I believe it will be found to extend further posteriorly than the origin of the fifth nerve, the irritation there causing the chorea, and also causing this atypical form of neuralgia from which the man suffers.

Dr. J. G. Cecil: This is a case in which there is doubt as to the origin or locality of the lesion, and it will require a very careful study of the case to locate it definitely, and all operative procedures should be delayed until that point is determined. Idiosyncrasy of the patient and susceptibility to slight nervous irritation may have something to do with the trouble in this case, and is worthy of consideration.

Dr. Rodman: It may be true that there is some connection between the chorea on the left side and the neuralgia on the right, but we must remember that one has existed for seven years, the other for only fifteen months, which would be rather strange if there was any connection between the two. I do not see just how any local meningeal trouble would press upon the origin of both nerves, and I am inclined to the opinion that there is no connection between the chorea of the left side and the neuralgia of the right. I further will say, although I can not explain it, that I think it possible a section of the nerve on the right side might in some reflex way benefit the chorea of the left side. This is not at all unlikely. I have not had time to go over the entire literature of the subject, but mean to do so. I intend to go thoroughly over the series of 108 cases reported by Tiffany in his presidential address before the American Surgical Association a year ago, in which he reviewed the subject of trifacial neuralgia very extensively, and reported all the operations that had been done to date in this and other countries. I hope the histories of these 108 cases will throw some additional light upon the case shown to-night.

Dr. J. A. Larrabee: I believe that the pain in this case might all be accounted for by the chorea, and this would be the natural conclusion had we not the history of the case before us as detailed by Dr. Rodman. My idea of chorea corresponds exactly with what Dr. Rodman has just said; and to follow it still further, chorea is, in my judgment, always a starvation process of a certain area without any apparent definite connection between the nerve itself and the chorea. There is a vasomotor spasm that produces a starvation of the entire center entirely due to that lesion which produces the neuralgia, still there may not be, anatomically speaking, any connection between the two in order for the chorea to be due to that. There should be a minute embolism producing the anemia of the center involved.

Dr. J. B. Marvin: The case shown is a very interesting one, and it is peculiar because we have a distinct tic on one side and neuralgia on the other. On the face of it a central lesion would suggest itself, but the absence of eye or ear symptoms, or any other reflex symptoms, would seem to be rather against that view. If it is a neuritis due to any peripheral trouble, there ought to be some painful points along the course of the nerve trunk. In the absence of this the case is somewhat puzzling, though the other symptoms point rather strongly to a central lesion. The man denies syphilis. He has a history of rheumatism, which might throw some light on the etiology of his present trouble. I have seen a few cases of tic douloureux where the origin of the trouble was far distant from any thing about the face. It seemed to be purely reflex. This man seems to have no reflex symptoms. He has passed a renal calculus; he has had rheumatism with great swelling of his knee many years ago, and prior to the discharge of the renal calculus.

The essay was read by Dr. William Cheatham; subject, Tumors of the Orbit. [See page 441.]

DISCUSSION.

Dr. J. M. Ray: I have seen a good many cases of growths of the orbit, and several cases in which there were intra-ocular growths. As several of the gentlemen present will remember, I showed a case two months ago to the Louisville Surgical Society in which a man had a decided exophthalmos, and with a growth of some kind, as we thought at the time, behind the eyeball. There was a history of gradually increasing protrusion of the eye, gradual diminution of sight. At the

time presented he was completely blind in the affected eye, and protrusion was marked. The man had suffered extensively from neuralgia of that side of the head and face, so much so that he had to use morphine at night in order to get any relief and allow him to rest. I enucleated the eye a few days after he was presented to the Society, the operation being performed at the University Clinic. I removed the eye, and cleaned out the orbit down to the periosteum. I found a nodular growth back of the eyeball that seemed to spring from the spleno-maxillary fissure; it was very firm and fibrous and intimately attached to the periosteum, so that its removal was difficult except by piece-meal. The operation, however, was made very thorough, and I thought every thing was removed, at least I could feel nothing except bone. In two weeks thereafter the growth began to recur. The operation completely relieved the man of pain, and he has not had any particular pain about the orbit since until recently. He presented himself at my office a few days ago, and the whole orbit seemed to be filled with a hard, firm mass which resisted pressure, and had so completely filled the orbit as to press upon the surrounding structures, and had produced the most intense edema of the eyelid, due probably to interference with the circulation. Previous to that time there had been no edema.

A microscopical examination of the tumor removed shows it to be a fibro-sarcoma. Since the orbit has become filled with the secondary growth the neuralgia has returned. I removed the eye in January, 1897, a little over two months ago.

I have seen several other cases of growths about the orbit, and probably Dr. Anderson will remember several years ago I removed a congenital fatty growth from the orbit of a child for him. And I would make this suggestion to those who operate upon fatty growths of the orbit, the eye can be pushed forward and the growth pushed to one side of the eye under the conjunctiva, and when you make an incision and take out the growth it looks as if you were taking out every thing; the growth unravels, as it were, until you are surprised at the amount removed. Dr. Cartledge will recall a case of probable fatty tumor of the orbit seen recently. I can call to mind two or three other cases. I had a case a few weeks ago in which there was exophthalmos as a result of some disease of the ethmoid cells which had evidently penetrated the orbital plate and the ethmoid bone, and in this way reached the orbit. When you come to tumors of the eyeball, it is quite an

extensive subject. I have had but a limited experience in this regard. I think I have removed two eyes for glioma; two for tumor of the choroid; four years ago I removed the eye of a lady seventy years of age, and the interesting point about the case was that there was a tumor of the ciliary body yet vision of $\frac{2}{3}$ at the time I removed the eye.

Dr. Cartledge: The lesson I draw from the paper is that practically, outside of a few tumors of the eye and orbit, all growths in this situation are malignant. The paper is timely, and ought to impress upon the profession at large the importance of referring patients with orbital tumors to the specialist promptly for proper treatment. I have seen five or six tumors in this situation, and in the number only one was benign. Every tumor of the globe that I have seen has been malignant, usually sarcoma. In view of the great preponderance of malignant tumors, it seems to me the profession ought to be educated to the idea of referring these patients to the specialist, and this ought to be done early so that the treatment may be prompt and thorough.

I desire again to take exception to what the specialist says in regard to tumors affecting the eyeball, in stating that if there is a suspicion that they are malignant, I believe not only should we remove the globe but also all the orbital structures. Almost every one of the specialists still contend that if the orbital structures are not appreciably involved that it is only necessary to remove the globe. I believe that we ought to take out all the orbital structures; this is certainly in line with the modern treatment of malignant disease.

Dr. S. G. Dabney: Dr. Cheatham has included rather more in his paper than its title would indicate, as he has included intra-ocular growths as well as tumors of the orbit. I have seen several cases of tumors of the orbit; one was a congenital lipoma, the patient being a young lady when operated upon. The point of which I wish to speak particularly is in relation to sarcoma of the orbit, because of a case that occurred in my own practice, operation having been performed and the specimen exhibited to this society six months ago. Of course it is much too soon to speak of the final result. The case was of interest for several reasons, principally because it was typical. In the first place the site from which the growth sprang was just where sarcomas usually have their origin, just outside the posterior pole of the eye. The age of the patient was what we would expect, fifty years. The course of the disease was also typical, beginning with detachment of the retina, followed by acute glaucoma. The quiescent period, or

the first period of the disease between retinal detachment and glaucomatous symptoms, is usually from eighteen to twenty-six months; in this case it was really about eighteen months, from the spring of 1894 to the fall of 1895. The next point I would mention is the two ways in which these growths cause death. One is recurrence *in loco*, and the other by metastasis, the latter being far more frequent than the former. One curious result has been established by Fuchs, viz., out of 259 cases he seems to have found metastasis to occur as often after early operation as when operation had been postponed until later in the history of the case. From the fact that metastasis have occurred where cases were operated upon in the first stage as well as later in the course of the disease, we can not well promise a patient immunity from the disease for a period inside of four years. Statistics prove that metastases, particularly to the liver, may occur any time up to four years with a fair degree of probability. One case has been reported after seven years. The next point is the average time in which metastasis occurs. Noyes says the average time for metastasis in the liver is two years.

As to treatment: When I reported the case I have referred to in the foregoing I remember two of the surgeons present expressed the same opinion that Dr. Cartledge has to-night, that, even if the growth is entirely intra-ocular, it would be wise to not only remove the ball but also all the orbital contents. None of the ophthalmic surgeons advise such a course so far as I have examined the literature of the subject. Berry says where the growth is in the inflammatory stage, where we had glaucoma, iridocyclitis, etc., it would perhaps be a wise precaution to remove the orbital contents. Of course they all advise this measure when the growth has involved the contents of the orbit. As long as it is confined within the ball itself the verdict of ophthalmic surgeons is in favor of removing the eye only. The lesson we should learn is that where we have a detached retina followed by glaucoma the indication is for the prompt removal of the eye.

Dr. Rodman: I wish to go on record again as an advocate of radical operation for malignant growths in any situation, and fully agree with the position taken by Dr. Cartledge. I think this is more in keeping with the advances that have been made in the treatment of malignant disease. We should not only extirpate the eyeball when it is the seat of malignant disease, but we should also remove the contents of the orbit. The same reasons would hold good here as in operating for cancer elsewhere. If we go in and remove not only the contents of the

axilla, but even going into the space of Mohrinheim, taking out every thing there, not only the glands that seem to be enlarged but all the fatty tissue that can be reached, in operating for cancer of the breast, I think we should also apply the same rule in removing cancer of the eyeball and remove the entire contents of the orbit. The zone of infection always extends beyond the point we can recognize by the naked eye, and we should remember this in operating for malignant disease. I would not think of appearances, or leaving a stump to which an artificial eye could be attached, but I would think more of the ultimate results. Though we have a capsule to the eye—the sclerotic, which I admit would seem to protect the wall to a great extent—still we know that sarcomas in other situations, although encapsulated, are not limited by the capsule, as it is easy to show with the microscope not only the infiltration of the capsule but the surrounding tissues as well by sarcoma cells. Therefore for that reason, which I think is substantiated by pathologists, the orbital contents should be removed in all cases of suspected malignant disease.

Dr. Wm. Cheatham: In the case referred to by Dr. Ray, since the development of edema of the eyelid, I would strongly suspect extension of the disease somewhere else. Non-inflammatory growths of the orbit rarely produce edema of the lid.

If I had a malignant growth of the eye, I would rather have a return by metastases in some internal organ than locally, because I would rather die of cancer there than of the head.

Dr. Rodman spoke of removal of the orbital tissue in such cases. I never think of leaving any orbital tissue for the formation of a stump. I do not think it is well to wear an artificial eye after removal of the eyeball for a malignant growth.

Reports of Cases: Appendicitis. Dr. William L. Rodman: I was called in the afternoon of April 13, 1897, to see a case with Dr. Thum, with the following history: A young man, aged thirty-two years, after eating largely of sausage, veal, popped corn, etc., on Sunday, was taken with nausea early Monday morning, with also considerable pain in the epigastric region. He was seen early Monday morning by Dr. Thum, who found his pulse between 80 and 90, temperature normal. There was no pain over the region of the appendix at that time. He was given a bottle of citrate of magnesia, which he promptly rejected; the stomach would not retain it for a moment. There being no pain

over the appendix, he was given a hypodermic injection of morphine. This was soon followed by purgation by calomel, podophyllin, and aloes, which had very good effect; he had three fecal evacuations on Monday night. Notwithstanding free purgation and restriction of diet, he was in considerable pain on Tuesday morning. He still had no fever, pulse about 90 to the minute.

I was asked to see him at five o'clock Tuesday afternoon. I found at that time there was marked pain over the abdomen, especially at the McBurney point. Pain had been so great that the abdomen was red from repeated applications of turpentine and lard. I have never seen greater pain. His pulse was 92, temperature 100.2° F. I was satisfied that the condition was one which justified an immediate operation, and advised it. It was accepted, and he was sent to the infirmary and was operated upon that night at nine o'clock. I found upon opening the abdomen that the appendix was very much changed in color, being almost a greenish-black hue, and in the appendix was a calculus or a fecal concretion one and a half times as large as a cherry stone. The omentum was thickened and inflamed over the appendix. In amputating the appendix a very small stump was left, and I was not altogether satisfied with the appearance of it, as it was greenish and necrotic-looking. After thoroughly cauterizing it with carbolic acid I brought the mesentery over it and put on top of this a piece of healthy omentum also. A great portion of the omentum was ligated with catgut and removed.

The man never had an untoward symptom after the operation, and his pulse has been about 70—to-night it is 68; his temperature since the operation has not been above 98.5° F., nor has there been any nausea.

The concretion, as you will see, is extremely hard, and has the appearance of a cherry stone, except it is considerably larger.

Discussion. Dr. Leber: Is it not usual in cases of appendicitis to have pain in the earlier stages referred to the stomach instead of the site of the appendix?

Dr. Rodman: It is common; and the case I have reported evidently began in that way.

Dr. L. S. McMurtry: I have a pathological specimen here which is illustrative. It was removed yesterday morning from a woman aged thirty-two years, who for six years has had recurring attacks of salpin-

gitis and peritonitis, and very recently suppurative peritonitis. She has been in bed three weeks with acute pelvic peritonitis, gradually becoming circumscribed, symptoms of suppuration coming on, sweats, etc.

Upon opening the abdomen the omentum was found capped over a large abscess, the omentum covering the abscess cavity. As soon as this was released the pus ran over the entire field of the operation, and the omentum was removed in connection with the tumor which I present. Here will be observed a cystic ovary; associated therewith and attached to this was the appendix, which presented on its peritoneal covering a very unhealthy appearance and was removed. On the left side will be found here an extensive salpingitis and oöphoritis with cheesy tube, giving constant suppuration. Adhesions were very dense and extensive, and stripping these loose from the sigmoid flexure was found to be rather difficult, and required a great deal of care to prevent injury to the intestines which were thoroughly matted together.

The point to which I desire to call attention in reporting the case is that just at this particular time there is quite a discussion going on among gynecologists and surgeons as to the best route by which to deal with these diseases. A large number of our confrères decide with the French school of surgery, who do all these operations *per vaginam*. In this instance it would have been almost impossible on account of the mass being very much forward, and the omentum being involved, to have done a thorough operation, and especially to release the intestines by the vaginal route.

The progress of the patient has been every thing that could be desired up to the present time. Her temperature was 103.5° F. the evening before the operation, and her pulse was 132 at the time of the operation. The operation was performed yesterday morning, and last evening about six o'clock her pulse was 96, temperature 99° F. This evening her pulse is 92, temperature 99° F.

This case had about all the complications that could well occur in such a case, and it is merely reported to show the difficulties that would have been encountered had an operation been undertaken by the vaginal route.

Discussion. Dr. Louis Frank: I agree with Dr. McMurtry that it would have been difficult to have operated upon the case reported by the vaginal route; I doubt if the abscess sacs could have been opened from below.

JOHN L. HOWARD, M. D., *Secretary.*

Abstracts and Selections.

THE NATURE AND TREATMENT OF SPASMODIC TORTICOLLIS.—Dr. G. L. Walton, of Boston, read this paper. He considered spasmodic torticollis as an affection of the cortical centers for rotation of the head. The pathology is not settled. The fact that it is sometimes easily inhibited does not establish a mental origin. Gross organic lesion is not present. Long-continued habit may merge into spasm, as seen in certain occupations. Eye strain sometimes plays a part through causing faulty position (oblique astigmatism, muscular insufficiencies). In one case it followed the wearing of a glass which increased instead of relieving an oblique astigmatism. The course of the disease is progressive. The principal muscles affected are the sterno-mastoid, splenius capitis, complexus, trachelo-mastoid, and inferior oblique. The commonest form implicates the sterno-mastoid of one side and the posterior rotators of the other; less frequently the spasm is limited to the sterno-mastoid, occasionally to the posterior rotators of both sides (retrocollis), and rarely to the sterno-mastoid and posterior rotators of the same side. Treatment other than operative is ineffectual in well-established cases. Simple nerve section and nerve-stretching are unavailing. The only operations to be considered are resection of nerves and section of muscles. Operations are generally too limited rather than too extensive. In most cases it will be necessary to resect the spinal accessory and the first three posterior branches of the cervical nerves. It will generally be wise to cut also the affected muscles. Muscle section alone has given good results (Kocher), but there is no reason to abandon nerve resection. Absolute cure can not be expected in over half the cases; there are improvement in a greater proportion and failure in a certain proportion.

Dr. Dercum thought we should be conservative as to our view of the pathology. He did not regard it as limited to the cortex. In some cases the torticollis seems to simulate the occupation neuroses, and is often cortico-spinal. He did not know of a case of absolute cure following operation. He referred to a case in which the spasm recurred after extensive operation. Some were benefited by rest and the use of gelsemium in increasing doses. His habit was to advise surgical operation at once in the majority of cases. He had never seen much benefit from resection of the spinal accessory nerve.

Dr. C. L. Dana, of New York, said there were three different types or phases of the disease—one occurring in early life associated with neurasthenic or hysterical manifestations; another more serious type in middle life, which he looked upon as a degenerative neurosis; the third occurred in children at about the age of fifteen years, and was gradually progressive

and incurable. The type must be considered in the treatment. He agreed with Dr. Walton as to the pathology. In a patient with the progressive type the autopsy showed degenerative process and chronic leptomeningitis of the convexity. He thought that many cases were primarily a cortical degeneration. The best treatment was prolonged rest and careful massage. Some patients are cured and others relieved. He did not believe drugs did permanent good. Surgical treatment was irrational in theory, and not of practical value in his experience, but he had never had the combined operation performed.

Dr. C. K. Mills had seen many cases. In the only successful one the patient recovered under the use of the actual cautery frequently applied and the administration of iodide and bromide of potassium. Gelsemium was the best drug. He had had various operations done, but had never seen good results. Nerve-stretching was of value. He laid great stress on absolute rest. He did not believe all cases were of cortical origin. At times they might be of nuclear and degenerative origin, and partly irritative.

Dr. Richardson, of Boston, discussed the subject from the surgical standpoint. He operated only under the advice of the neurologist. There had been a sufficient number of cures to justify the operation. He referred to a patient treated by a helmet with benefit, but such a method is generally intolerable. Surgical methods should be undertaken only after all other measures have failed.

Dr. W. W. Keen, of Philadelphia, also spoke from the surgical point of view. His experience was the same as that of others. In one patient after the usual operation he proposed operation on the cortex, which was refused. However, improvement subsequently occurred. Before surgical interference we must be certain that medical treatment (particularly absolute rest) has been properly and faithfully but ineffectually carried out. In his experience operation had failed as to absolute cure. In a considerable proportion of cases relief was obtained. These operations are not dangerous to life. He was disappointed in resection of the spinal accessory nerve.

Dr. V. P. Gibney, of New York, continued the discussion from the viewpoint of the orthopedic surgeon. His experience had been largely in torticollis in young children and adolescents from injury to the sterno-mastoid. These are easily relieved. In the class of cases under discussion he knew of no form of apparatus that would take the place of operation. Apparatus might supplement operation. He had obtained no benefit from gelsemium.

Dr. J. J. Putnam believed that the essential thing in the treatment was methodical education of the muscles. He knew of one patient who cured himself by voluntary efforts. These methods required many months.

Dr. Langdon mentioned the case of a young man who recovered. The treatment was absolute rest and stupefying doses of bromide and chloral for three weeks.

Dr. W. M. Leszynsky, of New York, after briefly referring to his successful use of increasing doses of atropine injected into the spasmodic muscles, mentioned the case of a lady, thirty-five years of age, who had been under constant observation for the last eighteen months. The clonic spasm had previously existed for six months, and involved the sterno-mastoid, trapezius, and complexus. The sterno-mastoid was hypertrophied to about four times its natural size. Atropine treatment could not be carried out, owing to idiosyncrasy. Conium and gelsemium failed. After prolonged rest and tonic treatment, together with local massage, passive movements, and educational gymnastics faithfully carried out, the clonic spasm was absolutely cured, it now having been absent for nearly ten months. This had, however, been replaced by a mild form of tonic spasm, which was remittent. A peculiar feature in the case was the high specific gravity of the urine, which was due to urates. Whenever the gravity rose to 1.030 or 1.034 the spasm increased, seemingly indicating an autotoxic irritative element in the case. He believed that if these cases were treated early by the foregoing method very little would be left for the surgeon.

Dr. Prince had tried atropine without benefit. The only case treated by massage and rest ended in recovery. Some patients improved with apparatus. He thought this condition analogous to the occupation neuroses, and recommended education of the muscles.

Dr. Wharton Sinkler, of Philadelphia, considered this disease under three types: (1) Hysterical. (2) Disease or irritation of nerves. (3) Cortical. The hysterical closely simulated the organic form. In the second type he advised rest and massage, gelsemium or conium. If these measures failed, he concluded they were cortical. Therefore operation on muscles or nerves was useless.—*American Neurological Association; N. Y. Medical Record, May 22, 1897.*

AIROL, DERMATOL, AND IODOFORM.—Haegler (reprint from *Beiträge zur klinischen Chirurgie*) reports the results of a comparative chemical, physiological, bacteriological, and clinical study of these antiseptic powders. The replacement of antiseptics by asepsis has lessened the field of usefulness of iodoform, the most particular indication for which is found in the case of tuberculous abscesses. Dermatol, a compound of bismuth with gallic acid, is more valuable for its astringent than for its antiseptic qualities. Lüdy conceived the idea of forming a compound of dermatol with iodine, and thus airoil was produced as a tasteless and odorless powder, unaffected by light, and containing 44.5 per cent Bi_2O_3 and 24.8 per cent of iodine; its color is gray-green, but moist air, or the discharge from a wound, rapidly converts it into a red substance, with liberation of iodine. It is insoluble in ordinary reagents, but readily dissolves in strong caustic soda or weak mineral acids. Haegler's first experiments related to the toxic effects of these antiseptics, weighed quantities of which were injected under the skin or into the peritoneal cavity of animals. The lethal subcu-

taneous dose of dermatol was 5 to 6 g. per kilog. of body weight, of airol 3 to 5 g., of iodoform 1 g.; intraperitoneally the respective doses were 1.2 to 2 g., 1.2 to 2 g., and 1 g. Airol and dermatol both killed by chronic bismuth poisoning; nevertheless, out of over 2,000 patients treated with airol by the author, not one showed a single sign of bismuth intoxication. The three drugs were next administered to animals in food, and here again it was found that iodoform was by far the most toxic, although the amount taken was the smallest owing to the subjects being repelled by the smell. With regard to dermatol and airol, the latter was the less poisonous, and it was noticed that both were better borne by carnivora than herbivora. In fatal cases of dermatol poisoning perforation of the stomach was frequently observed; this was not seen in animals killed by the administration of airol. Haegler finds that the delay in the growth of organisms produced by airol is slightly greater than that resulting from iodoform, and infinitely more than the effect of dermatol. It is found that the influence of antiseptic powders is greater the earlier their use is commenced; in acute phlegmonous processes, however, they do but little good, while the more chronic the inflammation the better the results obtained, whence their special indication in tuberculosis. The two great advantages in this respect which airol has over iodoform are, first, the fact that a small quantity of its iodine is liberated immediately it comes in contact with the tissues, and, secondly, that the presence of bismuth exercises a powerful desiccating influence upon the secretion, thereby greatly aiding antiseptis. With regard to the preparation to be used, both iodoform and airol are disintegrated by attempted sterilization, but the powder is a perfectly safe form if dust is carefully excluded. The author also uses airol gauze (20 per cent) as a dry dressing, and describes its effect in producing a small, hard scab in one to two days as marvelous; its value is particularly striking in superficial lesions, such as ulcers and burns. In tuberculous abscesses the form employed is a ten-per-cent emulsion in equal parts of glycerine and water. A final point in favor of airol is that it is extremely bulky, being four times as light as iodoform, and twice as light as dermatol.—*British Medical Journal*.

PRIMARY ERYSIPELAS OF THE PHARYNX.—Miss L. M., aged thirty, a school teacher, a few days after returning from Chicago, where she had been employed, had a severe chill followed by rise of temperature and a rapid pulse. She complained only of the usual symptoms accompanying pyrexia, but an examination of the throat showed the pharynx and tonsils to be acutely inflamed, but not sufficiently so to account for the constitutional symptoms, which were quite severe. Under the usual remedies used in pharyngitis the inflammation began to subside in a day or two, but the patient now complained of pain in the left ear. This was shortly followed by a discharge from that organ, and at the same time, or it may have been a few hours previously, there appeared a faint redness in and around the external auditory meatus. This redness gradually deepened and spread

over the entire face and part of the scalp. The temperature rose to 105.5° F., where it remained for two days. I now had on my hands a very severe case of facial erysipelas. The patient recovered.

I might say that upon the first examination of the throat I found the right tonsil partly covered by a small patch of exudation from its crypts. This fact increases the doubt as to whether the case was one of follicular amygdalitis with pharyngitis, the inflammation extending along the eustachian tube to the middle ear, and the erysipelas starting from the wound made by the perforation of the tympanum, or whether the primary inflammation was erysipelatous. In favor of the latter diagnosis were the very severe constitutional symptoms in the beginning of the sickness, and the fact that, so far as known, the patient had not been exposed to the virus of erysipelas after she left Chicago.—*R. Boyd Miller, in New York Medical Journal.*

DEATH FROM BURNS.—Sigmund Fraenkel and Spiegler (*Wien. med. Blätter*, 1897, No. 5,) hold that the cause of death from severe burns is intoxication by pathological cleavage products of the body proteid, which are caused to break up into abnormal and poisonous compounds. Freund and Reiss have shown that the urine of badly-burnt patients contains pyridin, which Fraenkel has obtained by the decomposition of deuterio-albumose with sulphuric acid. It hence seems possible that the body proteid may break up in a similar manner under the influence of heat. The authors have investigated the urine in four cases of fatal burns, and found it to contain invariably three abnormal constituents. The first is a series of bases of the pyridin type; the second is, or is closely allied to, cysteine; and the third reduces alkaline copper sulphate, does not ferment, and appears to be optically inactive. This latter seems to belong to Pavy's group of carbohydrate derivatives of proteids. The cysteine is completely precipitated by corrosive sublimate, and contains a large amount of sulphur, giving a black precipitate with lead. The urine was free from albumin and nucleo-albumin. The author's theory requires for substantiation the artificial preparation of these substances from proteid and the study of their effects upon animals. Meanwhile an important clinical fact seems to be that their presence in the urine is of grave prognostic import, for one of the cases did not appear at first to be of great severity, although it terminated in death.—*British Medical Journal.*

CIRCUMSCRIBED MENINGITIS.—Wolf (*Berl. klin. Woch.*) discusses the etiology of meningitis, and records a case of circumscribed meningitis complicating ear disease, and due to pneumococcus. An intradural abscess was opened during life. At the necropsy there was an old thrombus in the transverse sinus, and a pial vein opening into it was blocked, producing a localized cerebral softening. There was a localized suppurative pachymeningitis and leptomeningitis in the neighborhood, a chronic otitis media

and inflammation of the mastoid process, and a recent broncho-pneumonia. A complete bacteriological examination showed that the disease was caused by the pneumococcus. The point of entry was the ear. The limitation of the meningitis was due to the diminished virulence of the pneumococcus. Among 174 published cases of meningitis, there was only one with a circumscribed meningitis and encephalitis due to the pneumococcus. In sixty cases the diplococcus intracellularis was found. According to Jaeger this meningococcus is the cause of genuine cerebro-spinal meningitis. The author distinguished carefully between the pneumococcus in his case and the meningococcus. The latter is non-pathogenic to mice. He thinks that the pneumococcus and meningococcus are the chief producers of cerebro-spinal meningitis, and that other micro-organisms, especially the pyogenic cocci, play the causative part in only a few cases. In circumscribed meningitis the pneumococcus has up to the present alone been found. A general infection by way of the blood must be distinguished from a local infection arising from some region in the neighborhood of the skull. One of the most frequent modes of infection is that the micro-organisms gain access from the naso-pharynx through the eustachian tube into the middle ear, and thence into the cranial cavity. The author thinks that in a large majority of cases of metapneumonic meningitis the pneumococcus gains access by this route, and only in a few cases by way of the blood.—*Ibid.*

ETIOLOGY OF MASTITIS.—Rudolf Kostlin (*Arch. f. Gynäk.*) discusses the question of the relation between the germs contained in human milk and the production of mastitis. He has investigated bacteriologically the milk from the breasts of 100 pregnant women, of 137 patients in the puerperium, and of 60 children. Micro-organisms were found in the milk in these groups of cases in the proportion of 86, 91, and 75 per cent. With few exceptions these were of the nature of staphylococci, and especially the staphylococcus albus. The immigration of bacteria takes place from the outside from the mammary areola; their entrance along the line of the blood current has not yet been satisfactorily established. The entering germs are relatively innocuous; they injure neither the mother nor the infant. Mastitis without micro-organisms does not occur. The affection in mastitis takes place from the outside along the line of the lymphatic vessels from injuries in the skin. The result is the development either of the ordinary form of mastitis due to the invasion of staphylococci, especially the staphylococcus aureus, or of the much rarer form of pseudo-erysipelas and of retro-mammary abscesses caused by streptococci. These conclusions are supported by bacteriological, clinical, and pathologico-anatomical evidence. Mixed infections are of course quite possible. A metastatic mastitis developed along the line of the blood current has not yet been certainly established. The paper closes with a useful bibliography of eighty references.—*Ibid.*

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THE CHEMISTRY AND PATHOLOGY OF GOUT.

The chemistry and pathology of gout forms the subject of the Gultstonian lectures for 1897, the lecturer being the learned Dr. Arthur Luff. In the opinion of the editor of the Boston Medical and Surgical Journal, from whose excerpt of the lecture as published by the London Lancet we quote, the lectures are replete with original research and of great practical value. The main points are as follows:

1. Uric acid is not normally present in the blood of man and other mammals, nor in the blood of birds. This proposition is based on a great number of careful experiments made by Von Jaksch, Klemperer, and the author of these lectures; the latter regards the fact as established beyond question.

2. Uric acid is produced normally only in the kidneys.

Garrod in 1847 found uric acid in the blood of gouty patients, which led to the view that it was found in other organs and tissues of the body and excreted by the kidneys. Later this observer came to the conclusion that uric acid was produced by direct action of the kidneys from urea and other nitrogenized bodies in the blood. Hence the presence of this acid in the blood implies its absorption from the kidneys. Kalisch, Latham, and Zalisky (who found no uric acid in the blood of serpents after removal of the kidneys) believe that uric acid is formed in the kidneys through conjugation of substances formed in the liver.

3. Uric acid is normally formed from urea, probably by conjugation of that substance with glycocine in the kidneys.

The proposition that the kidneys form uric acid out of urea is only an inference from facts such as this, that no uric acid is found in the blood of the renal artery going to the kidneys, but only urea, and from analyses of the blood and urinary excrement of birds.

4. Uric acid is present in the blood in gout as a soluble sodium quadriurate. Investigations have shown that the amorphous deposits in acid febrile urines consist of quadriurates of the three alkalies, sodium, potassium, and ammonium, and it would seem that the uric acid which is formed in the kidneys is at once converted into the mixture of these quadriurates, which in the normal state are excreted, dissolved in the urine. If, however, any absorption of these takes place into the blood, as probably occurs in the gouty state, the ammonium and potassium quadriurates would be converted by the sodium carbonate of the blood into sodium quadriurate which would constitute the sole compound of uric acid circulating in the blood.

5. The presence of uric acid in the blood in gout is due to its deficient excretion by the kidneys, and to the subsequent absorption of the non-excreted portion into the blood from those organs.

6. Gout is always preceded by some affection of the kidneys, functional or organic, which interferes with the proper excretion of uric acid.

Upon this point there is a notable consensus of opinion among many observers. Norman Moore, in a large number of *post-mortems* found chronic interstitial nephritis to coexist in most cases with deposit of sodium urate in the joints. Levison strongly supports the view that antecedent renal disease is almost unexceptionally connected with gout.

Dr. Luff found in an examination of seventy-seven chronic gouty patients coexistent granular kidney disease. In the author's opinion the probable seat of the kidney lesion which gives rise to gout is the epithelium of the convoluted tubes.

7. In certain diseases of the blood, and disorders accompanied by leucocytosis, uric acid is formed within the system from nuclein and impregnates the blood. In leucocytosis, the excess of uric acid thus formed is rapidly excreted in the urine.

8. The solubility of uric acid in the blood is not affected by a diminished alkalinity of the blood produced by the addition of organic acids.

This proposition is based on careful experiments on blood serum charged with urates—not in the living organism but in the chemical laboratory. If valid, they teach that the ingestion of vegetable acids is not harmful in gout.

9. The deposition of sodium biurate is not accelerated by a diminution of the alkalinity of the blood.

This is also the result of experiments *in vitro*. If this proposition be correct the ingestion of alkalies can have little remedial effect in gout.

10. An increased alkalinity of the blood does not increase the solubility of deposits of sodium biurate.

This statement is also based on laboratory experiments. The therapeutic inference is the same as in Proposition 9. It runs counter to much current theory and practice.

Another series of experiments performed by Luff on solutions of quadriurates out of the body are in confirmation of empirical notions long held, namely, that the saline constituents of vegetables exercise a remarkable inhibitory power over the decomposition of sodium quadriurates. In other words, a vegetable diet promotes the solution in the system and inhibits the deposition of urates. If this deduction be sound, it is a therapeutic rule of the utmost importance for the gouty.

He also states as conclusions from similar experiments that the solubility of sodium urate in the blood is diminished by the presence of the saline constituents of meat. This, again, is in conformity with the old traditional and empirical notions, and gives a sanction to the rigid exclusion of animal food from the diet of the gouty.

Notes and Queries.

"TIC DOULOUREUX," FACIAL NEURALGIA AND MIGRAINE.—Gilles de la Tourette (*Sem. Méd.*) describes some typical cases. (1) Tic douloureux and neuralgia. From a therapeutic point of view it is most important to distinguish two classes of facial neuralgia; the first transitory and usually due to cold and peripheral irritation, the second refractory and perhaps incurable. First form: The pain during attacks is less intense, but is seldom entirely absent between them. The onset is sudden, then there is an acme and a decline. Second: Tic douloureux is completely paroxysmal, pain being entirely absent in intervals; its maximum intensity is reached quickly, and it ceases as suddenly as it came, the whole attack being of short duration. There may be ten to one hundred attacks in the day, which are often brought on by physiological acts, such as blowing the nose, laughing, masticating, etc., or come on spontaneously. The patients compress the painful spot, and the face is contorted. Secondary vasomotor symptoms are injection of the eye, edema of eyelids, discharge from one nostril, etc. If the lingual nerve is affected the mouth fills with a copious secretion. Herpes along the nerve is common. Most often the neuralgia lasts some time (weeks or months), and then vanishes completely for a period. However, as age advances these intervals tend to become shorter

and the painful periods longer until the disease is permanent. A hysterical form can be distinguished from the true by the irregular occurrence of the attacks, perhaps one a day and then no more for some time, by the actual duration being longer, by the usual presence of an aura, and by terminating frequently with hysterical convulsions, which latter are never provoked by true tic, though hysteria and tic may coexist. Hysterical neuralgia is curable by suggestive treatment. Treatment: The first form of neuralgia is always benefited by analgesics (antipyrin, phenacetin, hydrobromate or valerianate of quinine); the second, or true tic, is quite uninfluenced by them. The only drug which can be relied on in the latter is opium in large doses. The author gives it in pills containing 2 centigrams of the thebaic extract of the French pharmacopeia, made freshly and not too hard. Three a day are given at first, and, the effect being carefully watched, one pill is added every other day until the desired effect is produced. Trousseau gave in one case 14 and 15 g. a day. This dose is continued for a few days, and then diminished by one pill every other day. Prognosis: The attacks cured for a time almost always recur, and intolerance of opium is usually more marked during a second than in the first course. Still it is the best drug unless syphilis is present, when antisymphilitic treatment is indicated. (2) Migraine differs radically from trigeminal neuralgia; the two may coexist in the same person and be quite distinguishable. The treatment of severe cases, accompanied by aphasia, etc., used by the author succeeds where antipyrin and even opium fail. Bromides are given as follows: Starting with 2 g. a day for a week, the daily dose is raised by 1 g. every week, and after a time reduced progressively by the same amount, when it is again increased. Up to 7 g. a day may be tolerated. By this means migraine of years' standing may be cured, but the treatment must be absolutely continuous, and may extend over more than a year. Thus it is not suitable for slight cases, owing to the inconveniences attendant upon long course of bromides, and is useless during the attack. As an aid to treatment alcohol is forbidden. The treatment is the same as for epilepsy, and the author considers migraine to be a neurosis.—*British Medical Journal*.

SURGICAL OPERATIONS IN THE DAILY PAPERS.—Since medicine and surgery became established upon a scientific foundation certain distinctions have served to indicate to the general public the line of separation from charlatanry. To make such distinction the methods of advertising in the public prints common to quacks and nostrum venders have been interdicted on the part of the regular medical profession. In fact this is the chief criterion by which the public has learned to distinguish between scientific physicians and pretenders. Modern ingenuity in advertising as utilized by irregular practitioners and proprietors of patent medicines has so closely simulated ordinary reports of medical and surgical cases that the lay reader is often misled. This confusion is increased when regular phy-

sicians adopt the methods of charlatans to report so-called remarkable cases in the daily papers.

This vicious practice has been so frequently condemned by the medical press and by medical societies that it would seem useless to continue to animadvert upon the subject; but the eagerness of certain members of the profession to attract public attention oversteps at times all bounds of professional decorum and decency. In some instances this abuse is so often repeated that one might infer that a surgeon has adopted the practice of reporting every major operation he performs in the daily papers. Some common surgical operation is described in detail, headlined as a "Triumph of Surgery," a "Delicate Operation," "A Remarkable Case," etc., with exaggerated and sensational descriptions of ordinary surgical methods. The details, however, are usually sufficiently accurate to show that the source of reportorial information is in the surgeon himself, who seeks such notoriety as a "near cut" to public favor and patronage.

Apart from the position in which the profession as a whole is placed by such methods, the advertising surgeon is taking a most unfair advantage of his colleagues. The profession is scandalized by such conduct, and should by a vigorous public sentiment condemn all such disreputable methods. When a physician or surgeon adopts the advertising methods commonly practiced by charlatans he is breaking down the barriers between scientific medicine and quackery and has no right to expect the respect and confidence of his professional brethren.—*Journal American Medical Association.*

"CHURCHED TWICE IN ONE WEEK."—Our attention has been directed to a paragraph in the Manx Church Magazine for January, 1893. An extract from a parish register dated 1660 is there given as follows: "1660. Rob Cottier's wife was delivered of a child which was baptized upon the Monday, and she came to the church to be churched upon the Wednesday next after, and after returning home she fell in labor and was delivered of another child, and came to be churched upon the Saturday next after in the same week. Churched twice in one week. This I certify to be the truth.—Edward Crow, minister." It will be seen that the exact interval between the two confinements is not given. For all the register directly says to the contrary, the child whose baptism is mentioned might have been a year old, or even a person "of riper years;" the first churching might also have been left somewhat in arrear; but evidently the probability is that Edward Crow was somewhat struck with the fact that, after the birth of a mature or premature infant, a woman, without renewed coitus, may in the course of one, two, or three months give birth to another child, which may be mature or premature. There are three classes of such cases. In twin pregnancies after one child is born the other may be retained some weeks or months and then be born; again, a woman may have a double uterus, in each side there may be an ovum, and each side may expel its fetus at a different time; lastly, it may be a genuine case of superfetation. Coitus taking place in

the early months of pregnancy, a second ovum may be fertilized, and the children be born at different times. A case recorded by Dr. Bonnar, quoted in Playfair's Midwifery, is a good example of this class. A child was born on September 12, 1849, and another on January 24, 1850—that is, about sixteen weeks after the first. Both children survived, so that the second child could not have been conceived after the birth of the first, or we should find a fetus of about sixteen weeks' development born alive and surviving, which is impossible. On the other hand, the case could not be one of twins, the first of which was expelled prematurely, because the first born who survived would be, on that hypothesis, of only about five months' development.—*Lancel.*

THE MOTOR FUNCTIONS OF THE STOMACH.—Goldschmidt (*Münch. med. Woch.*, March 30, 1897,) describes a method of estimating the motor functions. Leube and others recommended emptying the stomach at stated times after a test meal to find out whether the contents had disappeared. Klemperer's oil method is open to many objections. The salol test, even as modified by Huber, is not altogether satisfactory. These methods are not adapted for ascertaining the amount of the stomach contents in the various stages of digestion. It is impossible to empty the stomach completely with the tube. It was sought to estimate the remainder by introducing a solution of hydrochloric acid of known strength, and so calculating the fluid remaining in the stomach by the dilution the acid solution underwent. Grape sugar has also been used for the same purpose as being more easy of determination. Another method consists in introducing 100 c.cm. of distilled water, and comparing the specific gravity of the fluid drawn off with that of the stomach contents first obtained. The author has investigated this subject in a patient with a gastric fistula. After expressing the stomach contents he introduces 50 c.cm. of distilled water and again expresses. Both specimens are filtered. As many c.cm. of the first filtrate are added to 50 c.cm. of distilled water as will produce specific gravity of the second filtrate. The number of c.cm. added will represent the amount of fluid left in the stomach after the first expression. The temperature of both fluids must be the same. The author's investigations have shown this procedure to be accurate, and it is very simple.—*British Med. Journal.*

BUBONIC PLAGUE IN INDIA.—The Anglo-Indian papers by the last mail are still very full of this subject, but their general purport is favorable. The worst is over, and the epidemic is still declining.

The Secretary of State for India has received the following telegram from the Governor of Bombay on the subject of the plague: "Deaths from all causes in Bombay City for week ended April 30th, six hundred and eighty-three; reported plague deaths, one hundred and sixty-nine. The population is returning continuously, and is now variously estimated at from 600,000 to 700,000. All persons coming into Bombay are now medically examined. In

Poona City deaths from all cases during the week ended April 30th, seventy-eight; reported plague deaths, forty-five. Further inquiry confirms correctness of figures. Satisfactory result of Poona City operations shown by return of plague cases: They were, for week ended March 26th, three hundred and nineteen; April 2d, two hundred and thirty-eight; April 9th, two hundred and thirty-five; April 16th, one hundred and fifty-nine; April 23d, ninety-four; April 30th, sixty."

At an adjourned meeting of the Bombay Medical and Physical Society, held on March 19th last, the papers read before the society on the subject of the plague on March 5th were discussed. A large diagrammatic chart has been prepared by Dr. Weir showing the progressive development of the epidemic, and the close relation between the total mortality and the mortality from plague, and the state of the barometer and dew-point during the prevalence of the disease.—*Lancet*.

OPERATION FOR ELEPHANTIASIS SCROTI.—Havelock Charles (Indian Med. Rec., No. 5, 1897,) describes a method of operating in cases of elephantiasis of the penis and scrotum, in which, after removal of the diseased structures, the large wound occupying the anterior half of the perineum is covered by healthy skin taken on either side from the inner surface of the thigh; these flaps are made by a sliding of the skin, and are not cut, lifted up, and planted down in the usual way. Retraction of the flaps is prevented by quill sutures formed by strong silk twist secured over glass rods. The author claims several advantages for this method. As the wound is covered by skin, the patient is less liable to septic absorption. The healing is completed rapidly, the wound being quite closed in eight days. The flaps are continuous on and around the base of the penis, which organ remains free, and is not bound down by granulations, and subsequently by dense cicatricial tissue. The average period of after-treatment is much diminished—from 70 to 30 days—and there is consequently less crowding of the wards. The mortality of the operation, it is held, may be thus much reduced. The author appends a table of sixty consecutive operations performed by himself without a single death. These cases, he asserts, were not selected, but embraced the usual run of anemic patients, some of whom suffered from splenic enlargement.—*British Medical Journal*.

THE ANEMIA OF MALIGNANT DISEASE.—Mori (*Atti del l' Acad. Med. Chir. di Perugia*, v. 8, f. 4,) gives the result of his experiments on this subject. Having prepared a sterile extract of cancer—taken from a case of rectal epithelioma and from one of mammary cancer—he injected 2 to 4 c.cm. daily into rabbits. At first the rabbit (a young one) increased in weight, but afterward steadily lost. The red corpuscles, except in the later stages, were unchanged. The leucocytes augmented in number immediately after injection (from 1 in 400 to 1 in 100); the hemoglobin coefficient sank from 70 to 50. After two months the animal was killed,

and except for enlarged glands about the site of injection the organs were healthy. Other rabbits similarly treated exhibited similar effects. In another set of experiments the author tried the effect of intermittent injections, with the result that the animal (if young) recovered when the injections were interrupted. This was tried over a period of two years in some cases, and always with the result that stoppage of the injections was followed by return to the normal condition. The author does not discuss the nature of the toxic principle contained in his extract, but considers that the anemia of malignant disease is probably closely associated if not due to some toxic product of the neoplasm.—*Ibid.*

PULSUS PARADOXUS ON ONE SIDE.—Gerhardt (*Berl. klin. Woch.*, April 5, 1897,) in reference to the case of a woman who generally had fewer beats in the left radial than in the right one (the right radial pulse corresponded to the heart beats), reports the case of another patient in whom exactly the same phenomenon was observed. At the *post-mortem* examination fresh purulent pleurisy and pericarditis were found, and the subclavian artery when slit open on the right side measured 2 cm., while that on the left side measured only 0.8 cm. Gerhardt thinks that the pericarditis caused the pulsus paradoxus, while the stenosis of the left subclavian artery caused some of the cardiac pulsations not to be felt in the left radial. By experiments on healthy persons it was found that if a certain degree of continuous pressure be exerted on the artery of one arm, the pulse can not be felt at both wrists at the corresponding wrist during very deep inspiration, though during ordinary respiration the pulse continues to be felt at both wrists. The explanation suggested in Gerhardt's first-mentioned patient (*Berl. klin. Woch.*, 1897, No. 1,) was that there was a stenosis probably from atheroma at the origin of both the left carotid and left subclavian arteries, since the pulse in the left carotid was likewise less frequent and smaller than on the right side. This patient left the hospital. A similar symptom is recorded by O. Heubner in a woman aged fifty-two; the right pulse was sometimes smaller and less frequent than the left pulse. At the necropsy a thrombus was found nearly closing the channel of the right subclavian artery.—*Ibid.*

EFFECT OF VENESECTION IN SKIN DISEASES.—Schubert (*Berl. klin. Woch.*, 1897, No. 16,) has treated thirteen chronic cases of skin affections—including eczema, psoriasis, and furunculosis—by venesection. Nine of these cases were cured. The effect in furunculosis is especially marked. Dyes described a case of a lady, aged thirty, who for seventeen years suffered from general moist eczema, for which every kind of treatment had been tried in vain. After the first venesection the eczema dried up, and four weeks after the third venesection the patient was cured. Schubert found in blood obtained by venesection that there was an increase in the number of white corpuscles in skin diseases, just as in other illnesses.

He thinks that the white corpuscles are most numerous in the capillaries, and that, therefore, they come away first with the blood drawn. The accumulation of white corpuscles in the cutaneous capillaries offers a good nutrient material for the growth of parasitic microbes, which excite skin diseases. His explanation of the good effect of bleeding in some cases of skin disease is that with each venesection the blood becomes poorer in these white corpuscles. With repeated venesection he has observed a kind of regeneration of the skin, the latter assuming a purer aspect and improved coloring.—*Ibid.*

ANTICARCINOMATOUS SERUM.—Dubois (*Rev. Med. de l'Est.*, February 1, 1897,) injected animals hypodermically with material obtained by harpooning fragments of human carcinomata and mashing them up, the object being to influence the organism by the inoculated cancerous elements, so as to obtain an anticarcinomatous serum. As a result several tumors appeared in the animals, the largest of which weighed more than twenty ounces. Three cases were treated by the serum. (1) A non-ulcerated cancer of the breast was almost completely cured after forty-five days' treatment, the tumor atrophying and being transformed into a fibrous nodule. (2) An epithelioma of the forehead had greatly diminished after thirty-five days. In these two cases 2 to 3 cm. of serum were injected every other day near the tumor, a few drops of slightly iodized alcohol being injected into the tumor itself. (3) A recurrent ulcerated fungating epithelioma of the upper lip had its progress arrested after twenty-three days' treatment, but there was no tendency to cure. The action of the serum is to induce a fibrous metamorphosis, and is most certain when used early in the case. Its use is not dangerous except in very advanced cases.—*Ibid.*

MUCOUS SEPTICEMIA.—Babes (*Bull. de l' Acad. de Méd.*, February 16th,) describes under this name an illness characterized by facial paralysis, anemia, fever, general progressive enfeeblement, and fatal ending. *Post-mortem* the vessels are filled with a whitish substance of a mucous nature, resulting from "mucous" transformation of the blood under the influence of a specific microbe, which is encapsuled and short, growing on the ordinary media, and termed by Babes the "*bacillus septicemiæ mucogenæ hominis*." Presumably this microbe requires special conditions to develop its action, for it did not produce mucous transformation of the blood in the laboratory animals.—*Ibid.*

A PEDUNCULATED FIBROMA OF THE BROAD LIGAMENT SIMULATING A LARGE SALPINGITIS.—Under the above title Sibut reports (*France Méd.*, January 22, 1897,) the results of a necropsy upon a woman who had died of phthisis. The uterus was of normal size, and carried an intramural fibroid projecting from its anterior surface and left side. The left tube was thickened and cystic at its outer end. The left ovary was surrounded by an

inflammatory zone; it was cystic and was grooved on its outer surface for the reception of a pedunculated fibroma of the broad ligament as large as a chestnut. The fibroma was attached to the ovary in a way similar to that of the head of the humerus and the glenoid cavity. The pedicle was twisted. The right tube was dilated at its outer end and the right ovary was cystic. There had been no pelvic symptoms during life. Probably every one would have concluded from an external examination that the fibroma of the broad ligament was a salpingo-ovaritis. The inflammatory lesions were probably tuberculous.—*Ibid.*

PRURITUS VULVÆ: CURE BY OPERATION.—Von Mars (*Monats. f. Geburtsh. u. Gynäk.*, April, 1897,) admits that the enormous literature of this subject is not satisfactory to contemplate. The pathology and treatment of pruritus vulvæ are both imperfectly understood. In three cases under his own observation he noted that the greater labia were, probably from changes due to swelling or atrophy, in a condition of entropion, hairs being seen turned inward on the vestibule and clitoris. When the hair was carefully trimmed the pruritus at once ceased. Such treatment, of course, would be difficult to carry out for long, as the stumps of the hair soon became irritating, and Von Mars therefore suggests that a thin elliptical piece of skin be excised from the outer limits of each labium majus, so as to produce an artificial ectropion of the labia.—*Ibid.*

SUCCESSFUL HYSTERECTOMY DURING LABOR.—Pinard and Second (*Sem. Med.*, January 20, 1897,) showed before the Academy of Medicine a primipara, aged thirty-two, with very marked rickety deformities of the skeleton and a waist measurement of forty-five inches. The pelvis was asymmetrical and the antero-posterior diameter 3.12 inches. Pinard allowed the pregnancy to proceed to term, and then, on November 16, 1896, after labor had begun, performed hysterotomy followed by complete hysterectomy. The child extracted from the uterus weighed seven pounds and fifteen ounces. At the date of the report the mother was suckling it, and was in perfect health.—*Ibid.*

DR. LUCY WAITE, the wife of Dr. Byron Robinson, has been elected head physician and surgeon to the Mary Thompson Hospital of Chicago. The hospital is devoted to the diseases of women and children; it was established thirty years ago, and has a capacity of eighty beds.—*Record.*

CLINICS ABANDONED.—Five clinics in the Brooklyn Throat Hospital have been discontinued, the reason given being that they were for the treatment of disease in no way related to the throat, and were consequently not provided for in the charter of the institution.—*Ibid.*

A PROLIFIC FAMILY.—With the advent of a daughter to the Duke and Duchess of York, the number of grandchildren and great-grandchildren of Queen Victoria is now an even thirty.

Special Notices.

A REMEDY IN NERVOUS DISORDERS WHEN CHARACTERIZED BY MELANCHOLIA.—The "Reference Book of Practical Therapeutics," by Frank P. Foster, M. D., editor of the New York Medical Journal, which has recently been issued by D. Appleton & Co., of New York City, contains an article of which the following is an excerpt, which we feel expresses the consensus of medical opinion as adduced by actual results: "Antikamnia is an American preparation that has come into extensive use as an analgesic and antipyretic. It is a white, crystalline, odorless powder, having a slightly aromatic taste, soluble in hot water, almost insoluble in cold water, but more fully soluble in alcohol. . . .

"As an antipyretic it acts rather more slowly than antipyrine or acetanilide, but efficiently, and it has the advantage of being free, or almost free from any depressing effect on the heart. Some observers even think that it exerts a sustaining action on the circulation. As an analgesic it is characterized by promptness of action and freedom from the disagreeable effects of the narcotics. It has been much used, and with very favorable results in neuralgia, influenza, and various nervous disorders characterized by melancholia. The dose of antikamnia is from three to ten grains, and it is most conveniently given in the form of tablets."

GEO. W. SAMUEL, M. D., Nashville, Tenn., says: I had a case of a man who had been drinking heavily for several days. I prescribed Celerina in tablespoonful doses, every three hours, and in a short time he was in good shape again. I also used it in a case of neuralgia in the following formula:

R Celerina, 8 ounces;
Quinia sulph., 60 grains.

M. Sig. Teaspoonful every four hours.

It acted like a charm. In a case of impotency, I used calomel in connection with Celerina, and the patient reports every thing standing all right.

SANMETTO IN DIABETES MELLITUS.—R. A. Miller, M. D., of Atchison, Kan., writing, says: "I used Sanmetto in a severe case of diabetes mellitus in a gentleman, fifty-four years of age, in which there was an excessive flow of urine, patient having to arise some four or five times during the night; severe irritation at neck of bladder and enlargement of the prostate gland, dry, hot skin, with considerable emaciation. After using Sanmetto for three or four days the trouble was greatly improved, patient not having to arise more than once during the night, and has since by the use of one more bottle of Sanmetto almost recovered. I think Sanmetto a most excellent remedy."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE STANDARD OF MEDICAL EDUCATION.

The address of the retiring President, delivered at the regular annual meeting of the Association of American Medical Colleges, Philadelphia, June 1, 1897.

BY J. M. BODINE, M. D.

Professor of Anatomy and Dean of the Faculty in the Medical Department of the University of Louisville.

Life is our greatest boon. "All that a man hath will he give for his life." Richard, in peril, offered his kingdom for a horse; Krupp, the great gun-maker, conscious of unrealized ideals and unexhausted power, said to his physician, "I will execute my bond for one million of dollars for a lease of ten years of life." Winlock, the greatest astronomer, to whom the universe was becoming familiar, and to whom science looked for wider reading of the stellar volumes, fell in the prime of his powers; Grady's sun went down at meridian when the eyes of a nation were riveted hopefully on the rising prophet of reconciliation; and thus, the urchin must drop his primer, the geometrician, his cubes and cones, the geologist, his fossils, the chemist, his retort, the surgeon, his scalpel, and die in the very hey-day of hope, and plenitude of promise.

Health is power to attain and achieve. Disease impairs the structure and functions of the body, embarrasses and impedes intellectual progress. The physician is the conservator and promoter of the world's greatest wealth. He who is intrusted with the preservation of health and the prolongation of life should feel a vast responsibility and should be held to the strictest accountability in the discharge of his trust.

He has, if incompetent and vicious, the greatest opportunities to inflict and conceal damage. Under the warrant of his office he administers deadly poisons, criminal for a layman to give, or a pharmacist to sell save on the prescription of a medical practitioner. He wields the knife and lays its sharp edge on the vitals, which, should another employ, would label him an assassin. Under the charter of his calling he is permitted to observe organs and functions forbidden to the profane eye and the wanton touch. He holds the secrets of his patients related to the vicious causes of disease, and is admitted to a confidence as close as that of auricular confession. He can, if corrupt, blackmail or destroy his confidantes. He holds the keys of honor and happiness, of life and death.

What intellectual and moral qualities should inhere in a character intrusted with the guardianship of the shrines of the sanctuary of home and of the very citadel of life! How important what he prescribes or prohibits! How potential his place in society and the State!

Says Amiel: "The ideal doctor is a man endowed with profound knowledge of life and of the soul, intuitively divining any suffering or disorder of any kind, and restoring peace by his mere presence. The model doctor should be at once a genius and a saint."

This may be the extravagance of a lay enthusiast, but surely neither the ignorant nor the immoral should be introduced to such a throne by the college or the State. Such an office and work, as the marriage Ritual says of wedlock, "is not by any to be entered into unadvisedly, but reverently, discreetly, and in the fear of God."

Indeed, unless one feels called to such a trust, he should not accept it. It is a vocation as well as a profession. To license a man to practice medicine who is ignorant of the organism he is to treat, the essence and operation, the affinities and incompatibles he prescribes, is to issue a license to murder. Other professions and arts are open to public scrutiny, and bad work may be condemned by public opinion, but the doctor may conceal his diagnosis and treatment. He may magnify the malady of his patient; if he dies, attribute it to other causes than lack of skill, or to that payment of Nature's debt which we all must, some time, discharge. It is even improper for a cotemporary to criticise the work of his *confrère*.

If there is any pursuit that should be carefully guarded and guided it is the vocation of the doctor. He should acquaint himself with the powers that repair, pull down, and build up the human temple. Like

Solomon, he should have "wisdom and understanding exceeding much, and largeness of heart, even as the sand on the seashore."

Before assigning a patient to a special department of nosology, it should be remembered that each has a distinct personality, and is a unique specimen. Broad generalization can not result in judicious therapeutics. Every case is a separate problem, requiring a special solution, the more so the older the patient and the closer he is to urban life. Each illness calls for the exercise of a particular judgment. Medicine can not be successfully practiced by one enslaved to precedent, or confined to formulæ.

No time is lost in whetting a dull scythe. Strength, skill, and success are promoted by prudent preparatory delay.

There is much prating about crowded professions, but there is "room at the top." No one should blame men if they refuse to pay for botched work. Men of eminent skill, in any calling, are certain of cordial welcome from a help-needing world. "Cheap Johns" must have a wide public, since no customer ever repeats his bargain. Quacks must advertise and travel. The time is past for stone hatchets and blunted tools. From the lowliest craft to the highest professions only the fittest survive; only skill succeeds. Ithuriel's spear "of celestial temper" has but to lightly touch falsehood and it withers. Pasteboard armor may turn the point of a tin rapier, but only steel mail can resist the blows of the Damascus blade with which the age is armed. Popular intelligence is armored against the tin soldiers of charlatanism. With the growth of the masses in knowledge rises the demand for thoroughly furnished men.

Reverence is no longer secured by fear. The spirit of inquiry is winged. "The school-master is abroad," and before him the castled prejudices of the ages go down like the walls of Jericho before the bugle blasts of Joshua. Men no longer regard a thing because it is old or new, but because it is true. Unreasoning credulity and superstition exist, but like serpents are becoming extinct as civilization destroys their coverts; ignorance and folly are yielding to progress, to popular enlightenment.

The world is no longer a babe, dandled on a nurse's knee, silenced by a lullaby, "pleased with a rattle, tickled with a straw." The inquiring spirit and stirring scenes of the times give token that the human mind has dropped its swaddling clothes, emerged from the nursery, and entered upon its maturity.

The demand is for universal education. Intelligence requires it for its own protection. Compulsory education is no longer regarded as a tyranny, but as an essential to the perpetuity of free institutions. The Goddess of Liberty presses close on the heels of the Herald of Light, and no sooner does the bugle of the latter break on the breeze than the former answers with an echo. Men are to be free, and freedom means knowledge. An ignorant people can be governed by despotic power, but only an enlightened people can govern themselves. In America the citizen is king. The king must be educated to wield aright his ballot-scepter.

To help forward the enfranchisement of mind, the overthrow of enslaving ignorance, caprice, and superstition is the object of this Association. We would lift our profession out of every shadow, sphere it in the pure light of truth, and surround it with the tonic atmosphere of honor. We would give strength and symmetry to humanity by overcoming the abnormal conditions that have distorted and emasculated the race. We would, as with a transforming harp, exorcise the demons of darkness and disease which madden mankind. We would restore the rhythm of the faculties and forces disturbed by heredity and environment. We would institute the reign of rational living. We would extort from Nature her every treasured secret. We would train eye, ear, touch, and instrument to the discovery of every hidden force in Nature's Arcanum. We would interpose a shield to turn the shafts of imposture. We would kindle a search-light that will expose to popular contempt the charlatanism of the unscrupulous and the magic of heartless deceit. We would outlaw every Iago who "to put money in his purse" would traffic in health as if a peddler's merchandise. We would arrest every Shylock demanding of skeleton necessity his pound of flesh. We would hospitably receive every worthy candidate for the instruction we can impart, and send forth every graduate with a seal bearing the impress of honesty. And, as "in a multitude of counselors there is wisdom," let us hope that our deliberations, from time to time, will result in promoting and finally attaining that end—the benefit of mankind—which inspires the purpose and hope of every member of the Association.

The prime question of interest and problem for solution is, How can we raise the standard of the medical profession? This inquiry resolves itself into three parts: First, What grade of academic attainments shall be deemed essential for matriculation in medical colleges; second, What shall be the curriculum as to studies and the time of

their prosecution; third, What authority shall license an applicant to practice medicine. The first question has been rightly answered by this Association. I quote from Article 3 of the Constitution:

Sec. 1. "Each college holding membership in this Association shall require of each student before admission to its course of study an examination, the minimum of which shall be as follows:

"1. In *English*, composition on some subject of general interest. This composition must be written by the student at the time of the examination, and shall contain at least two hundred words. It should be criticised in relation to thought, construction, punctuation, spelling, and handwriting.

"2. In *Arithmetic*, such questions as will show a thorough knowledge of common and decimal fractions, compound numbers, and ratio and proportion.

"3. In *Algebra*, such questions as will bring out the student's knowledge of the fundamental operations, factoring, and simple quadratic equations.

"4. In *Physics*, such questions as will discover the student's understanding of the elements of mechanics, hydrostatics, hydraulics, optics, and acoustics.

"5. In *Latin*, an examination upon such elementary work as the student may offer, showing a familiarity usually attained by one year of study; for example, the reading of the first fifteen chapters of Cæsar's Commentaries and the translation into Latin of easy English sentences involving the same vocabulary."

Sec. 2. "In place of this examination, or any part of it, colleges, members of this Association, are at liberty to recognize the official certificates of reputable literary and scientific colleges, academies, high schools, and normal schools covering the work of the foregoing entrance examination, and also the medical student's certificate issued by any State examining board."

So much of Latin as is essential or advantageous to the physician in a utilitarian way is required by our matriculation examination, and it is enough. The scholars of this age do not write Latin, save as a mere exercise; they never speak it; it is no longer the language of diplomacy or of the Republic of Letters, and is mainly serviceable for the purposes of nomenclature and prescription formulæ.

We must avoid a requirement that savors of scholasticism. All that Celsus, Dioscorides, and Galen can teach is accessible in translations.

All that technique embodies is at hand in the pharmacopeia. A scholar in the age of Alcibiades had but little history to learn, as the world was young; science was unborn; philosophy was a tangled web of disputatious metaphysics, and polite literature was included in a narrow compass. But now the empire of learning has become so large that many subdivisions are made necessary, and a stupendous price is exacted for proficiency in any single branch worthy of pursuit. The temptation to require too much of young men always exists.

It is indispensable that one should understand what he undertakes to practically pursue, but this is consistent with ignorance of many things outside the special circuit of endeavor.

I would subtract nothing from nor add any thing to our standard. After young men have qualified themselves to meet these requirements and can afford to give more time in preparation for Medical College Matriculation, they should devote themselves to the study of botany, chemistry, with quantitative and qualitative analysis, vegetable anatomy, and physiology, and zoölogy, macroscopically and microscopically. Such studies train the senses to observe, and prove as good gymnastic exercise as hunting down a verb to capture and connect it with a substantive in Latin construction, and they have direct relations to the framework, enfleshment, and functions of the human organism. Our standard for admission is sufficiently high to employ all the energies of an aspiring youth in the average country district; and, while it may appear a procrustean method, we would publish the inexorable fact that unless students come to the college fitted to prosecute its curriculum, they can not break in, buy in, or bribe with influence. A course of preparation for the army and navy is essentially different from one designed to fit for civic avocation. Agricultural and mechanical colleges frame their curricula with distinctive reference to the practical arts of the farmer and artisan. Technical institutes look invariably toward architecture and engineering.

Why should not all colleges and universities fashion a course of study with direct reference to the pursuit to be followed as a life-calling, so that, from the open elective course, a student, with the bar, pulpit, or medicine in view, could select the studies that would best prepare him for his professional career? As to the curriculum in our medical schools we are practically agreed, and there is concurrence also as to the time of medical pupilage. Should the time limit ever be reopened, I think it would be better to extend the annual course, and

thus include more time in the term, than to spread the curriculum over an extra year or years. The best results are obstructed by a student's turning aside from his specific pursuit to engage in another to secure means of prosecuting a professional aim. Such an interruption is not a mere switching of an electric chain, the current to resume its flow on reattachment. There is a loss of energy and of continuity of influence. It takes many a revolution of the brushes of a dynamo to accumulate electric force. The storage battery loses rapidly. So, divert attention from a mental pursuit, and not only is the mind enervated of current power, but the memory leaks and many facts escape, which are slowly, if ever, recovered. It is important that the pursuit of a profession should be continuous.

Conceding that it is wise that a medical board should be constituted by the State to examine and license candidates for the practice of medicine, in order to modify the influence arising from partisan and personal favoritism in the appointing power, it appears to me advisable that the State medical society of each of the schools represented in the board should select and recommend a suitable person or persons for membership.

I opine that the best disposition we can make of this question is to refer it to the National Confederation of State Medical Examining and Licensing Boards, with the hope that it will be able to substitute for the existing chaos an orderly and reciprocal performance of function.

The requirement of a high-school graduation as an essential prerequisite to medical college matriculation is now a burning question in certain sections of the country. I hope it will never become a controversy that shall disturb the counsels of this body. While the high-school graduation and a four years' course constitute a commendable standard at which to aim, it is not now attainable in the majority of cases, and to impose such a standard would work hardship and injustice to young men, to the colleges, and to the public; especially would this damage be felt in the West and South.

The rewards of practitioners in sparsely settled and impoverished parts of the land are not such as to justify so large an expenditure of time and money. They have not at home academic facilities, nor the means to seek them abroad. Vast sections would be barred from furnishing students by insistence, as a *sine qua non*, on a completed high-school education for matriculation and a quadrennium for graduation. The pulpit and bar of numerous sections are supplied with men

who have fitted themselves by self-effort at or near home, and unless so furnished would be left without occupation. Shall we by an arbitrary, inflexible scholastic and time standard deprive these localities of similar men in medicine? These men, too, are by association, knowledge of the country, its climate, and characteristics, suited for work in their native mountains and on their native heather as no exotics could be though possessed of superior attainments in other respects. The South has furnished a brilliant galaxy of professionals—jurists, lawyers, clergymen, statesmen, scientists, surgeons, and soldiers—who, barred such privileges as the North affords in its populous centers, but who, endowed with natural abilities and ambition, have mastered books without pedagogues, poring over them by the light of pine-knots, acquiring abstraction amid confusion, aspiring amid repressive environment. Strike these self-architected men from the pages of history and their illustrious names from the bead-roll of fame, and it would be like blotting Orion and its shining belt or the Southern Cross from the starry firmament.

Education is attained in other than academic ways. It is sometimes the product of an observing contact with nature, and an early-formed habit of introspection. Some minds, self-taught to think, are measurably independent of books. It is sometimes attained within a narrow range of studies. Some have a genius for the rapid acquisition of knowledge. In some memory is phenomenally retentive. Many country boys who know little of the silken niceties of urban society, and who appear as verdant as their native forests to a metropolitan, have listened to "tongues in trees, books in the running brooks, sermons in stones," and acquired a large store of facts, and a considerable degree of abstraction and concentration power.

The love of nature is fundamental to a study of the physical sciences. Nature is a mighty parable—a magnet for the drawing out of the mental faculties. Fields and forests, mountains and meadows, starry skies and sun-gilded firmament, herds and flocks, birds and flowers greatly contribute to the nourishing of a desire to know the secrets imbedded beneath the surface of things and embodied in the organisms of animated creatures. Contact with broad and breathing expanses, the association of ideas with objects lead to the quest of the order of the universe, and the causes that turn the wheel-work of the creation, and which vitalize its varied life. Much must be credited to unconscious cerebration. The thoughtful, aspiring country youth has

advantage in the tedium of rural life. To overcome the *ennui* of existence he is rowelled to thought. He is not bewildered by battalions of books, and is driven to an exhaustive use of the few at hand. What he lacks in fractional information of many books is made up by thoroughness in the study of those at command, which are apt to be of sterling value. "Brush Academy" has turned out many mental athletes—explorers. We have seen many a bucolic youth start upon a college career with scant furniture of information, yet possessed of prodigious storage capacity. These nature-prepared minds rapidly fill with facts and principles, while others, bright with "glittering generalities," prove to be junk-shops of miscellaneous second-hand wares. Capacity can not be measured with a joiner's rule. Select questions do not always afford satisfactory tests of fitness for matriculation in a medical college. No school-master can make brains. The man who has them of sufficient quality can conquer difficulties if he will act upon the formula of the Greek poet:

"I ask what's to be sought—
I learn what's to be taught—
I beg the rest of heaven."

Genius is but another name for hard work. The most gifted must learn. Genius is a ready-made honeycomb, but every cell must be filled with knowledge obtained by labor. Application often enables the naturally dull to outstrip the lazy genius, as the tortoise by plodding did the nimble-footed hare that took a siesta by the way.

West began to paint in an attic and plucked his brushes from the family pussy. Paganini was to play—some one displaced his Cremona and substituted a rude violin. Informing his audience of the ruse, he said: "I will convince you that the music is not in my violin, but in me." With exquisite bowing, he drew forth strains that would have entranced the Sirens as did the Orphean harp. The world is an inferior instrument, and he who would elicit dulcet sounds from its coarse strings must have the harmony within himself.

"Necessity is the mother of invention." Put a man under pressure if you would get the best out of him, as flowers yield their sweetest perfume when bruised. Some one says: "Men are like tea, flavorless until put in hot water." Adverse circumstances are as the wine-press to the vintage. Poverty is often the spur to endeavor. Pluck wins where luck loses. Many tardy temperaments quicken under the stimulant of necessity. Make a reasonable amount of effort essential to the

prosecution of a high aim, and industry will ensue. But excessive pressure is disheartening. Demand too much, and the temptation is to enterprise nothing. A plow should not cut more than it can turn. Make the prerequisites and the curriculum too large, and but few will attempt to compass them. Many of our youth must prepare at home, and are ill-furnished with local facilities. The academy or college is far away, and the purse is poor. Nevertheless, bring your requisition within the reach of home facilities and self-help, and the worthy will aspire and achieve.

Many have risen to eminence without classical attainments, but they acquired habits of observation and abstraction by wrestling with other difficulties than those embraced in the ancient languages, or in the higher mathematics. Benjamin Franklin, Elihu Burritt, Samuel Drew, William Cobbett, Abraham Lincoln, and a host of others had no academic advantages. Cobbett's experience stands for that of many others: "I learned grammar when I was a private soldier, on the pay of a six-pence a day; my knap-sack was my book-case, and a bit of board my writing-table. In winter I could rarely get a light but that of the fire, and only my turn even of that. To buy a pen I was compelled to forego some portion of food. I had to study amid the noises of the barracks." Here was patient, persevering, sacrificial activity, self-government. No university supplies these; no advantages can substitute them.

Finally, whatever may or may not be adopted, let this league of colleges establish the fact that medical rank can only be attained by those who industriously seek to be worthy of the honors they wear. Let our young men understand that the standard is high and to be exalted. Lay out a field adequate to the taxing of effort, the harvest of which is only to be reaped by diligence and privation. Teach that he who would "climb the steep where Fame's proud temple shines afar" has no time to spend nor talent to waste "sporting with Amaryllis in the shade and playing with the tangles of Neæra's hair."

Let us write it over the portal of every college auxiliary to this Association, "There is no excellence without labor."

Gentlemen, our vocation is one of indispensable value, one which, from its close contact with the popular mind, must tend vastly to the molding of our Republic's career; let us then unitedly strive to lift it above all reproach, and to introduce that beatific era when its name shall be the synonym of honor.

SPECIFIC URETHRITIS; ITS POSSIBILITIES AND PREVENTION.*

BY WILLIAM R. BLUE, M. D.

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¹2637 B. C., when specific urethritis was first described by the Chinese Emperor, Hoangty, until the present time, this misnamed disease, its complications and sequelæ, has been written and talked about more than any disease known to the profession.

Regardless of this fact, the profession, up to twenty-five years ago, looked upon the disease as a simple one which could easily be cured with astringent injections and diuretics. Not until Nöggerath took the stand that he did in 1872 did the profession begin to realize how serious a disease specific urethritis was. He conferred a great service upon medical science when he forcibly alluded to the importance of latent specific urethritis in its relation to the ailments of married women. He holds that latent specific urethritis in man is a continuance of the disorder after an apparent cure. Though it may not for years be manifest, nor be produced by any kind of excess or stimulating causes, specific urethritis may certainly reappear in a woman who has once been affected. Any excitement of the sexual organs is sufficient to disturb her general health. This chronic specific urethritis is the most frequent of female disorders, and gives rise to most of the minor ailments of women.

The researches and reports of such gynecologists as Lawson Tait, Martin, and Olshausen have completely confirmed the correctness of Nöggerath's views. Nöggerath considers specific urethritis incurable. He believes that when it is apparently cured it really has only become latent, and the wife is almost always infected. She may in this way acquire an inflammation of the mucous membrane extending from the vagina to the ovaries (to say nothing of the urethral, vesical, ureteral, and kidney involvement that is liable to occur). (Words in parenthesis my own.)

In reply to the objection, that from the frequency of specific urethritis in the male almost all married women would be necessarily unhealthy, he says "they are all unhealthy." The matter has reached such a phase that some young women are afraid to marry, because they know that all their married comrades soon become sickly and do not recover their health.

* Read at the forty-second annual meeting of the Kentucky State Medical Society, Owensboro, Ky., May, 1897.

Lawson Tait, in his work on "Diseases of Women," says: "Even an acute specific urethritis is not a matter often to be unhesitatingly discriminated, and I am certain that hundreds, if not thousands, of instances are occurring annually, in which serious and even fatal mischief is done by specific urethritic infection; the victims of which are entirely unconscious of the primary infection. Some of the best authorities, who have to deal with specific urethritis among men, go so far as to say that it is a disease which is never really cured. As I have little or no experience of the disease in males I can not express an opinion on this subject; but, if I may judge of what I know of the disease told me by patients and their husbands, I accept this view thoroughly. I can see no way out of its acceptance to understand the occurrence of large numbers of cases of the terrible disease.

Early in life I heard an eminent surgeon, one of my own teachers, say that if he were condemned to have a venereal disease he would rather have syphilis than specific urethritis. I marveled and disbelieved, but now I know that, if he included women in his thoughts of the subject, he spoke truly. Syphilis is a relatively harmless disease. It may cause discomfort and distress, and even much pain, but I doubt if it ever kills women. If it does, where syphilis kills its tens, specific urethritis kills its thousands; and it would take the sufferings of a hundred cases of syphilis to make up for the long weary years of agony of one case of gonorrheal pyosalpinx. Modern gynecologists have unearthed the conclusion that specific urethritis is a fatal and terrible scourge to women.

Mr. Tait considered Nöggerath the most eminent man of his time. A man whose purity of intention, earnestness of purpose, and skill in diagnosis put him ahead of any gynecologist he had ever met.

Martin says: "The gynecologists appear to be more and more convinced that Nöggerath's deductions are authoritative to a large extent, and the probability of wives being infected with specific urethritis must be more earnestly considered than has frequently happened in the past."

Professor Olshausen, Professor of Diseases of Women in the University of Berlin, says "that the gist of Nöggerath's monograph contains assertions and conclusions that are trustworthy, and truths which many have dimly imagined, but for which to their full extent no one had cared to make himself responsible."

Following Nöggerath's thunderbolt, for it was a thunderbolt with a little chain-lightning thrown in to many of the profession, came

Neisser's discovery of the gonococcus, a microbe which he claimed was characteristic of specific urethritis. I might say here that Nöggerath barely missed the discovery of the gonococcus, for he said: "In my work four years ago I expressed the hope that the key to solve the question might be found in the presence of a fungus peculiar to the secretion of married women affected with latent specific urethritis, of which my researches up to that time had given me much encouragement."

This discovery threw new light on the disease. Now that the gonococcus had been found, the profession set about devising means to destroy it. How well we have succeeded you all know. In reference to the many complications of specific urethritis, in both male and female, a number of investigations and experiments have been recently carried on with an idea of finding the responsibility of the germ.

²Neisser claims to have found the gonococcus in all urethritic discharges, and in all gonorrheal conjunctivitis. In 1880 Bokai and Finkelstein not only corroborated Neisser's observations, but asserted that they had been able to cultivate it and to induce specific urethritis in two cases by introduction of pure culture into the urethra. Finally Bumm, in 1887, cultivated the gonococcus upon human blood serum, and produced specific urethritis with the twentieth generation of a pure culture. Pure cultures have been obtained eleven years after the subsidence of an attack.

Finger inoculated seven cases with pure culture of the germ, and in all these the results of the inoculation were positive.

Thayer and Blumer report a case in which the complications were ulcerative endocarditis and general septicemic infection. The case was that of a woman who came to the Johns Hopkins Hospital in April, 1895, complaining of rheumatic pains from which she suffered for three months. Examination of the heart disclosed both presystolic and systolic murmurs and a gradually extending area of cardiac dullness, fixing the diagnosis of endocarditis. The spleen was much enlarged, and an examination of the blood showed pronounced leucocytosis. Low fever was also noted, diarrhea and gradually increasing weakness resulted in death about three weeks after admission to the hospital.

In a search for a source of infection during life gonococci were detected in the blood of the median basilic vein, and were cultivated from it in a mixture of blood and agar in the proportion of one to three. The morphology and mode of growth of these germs were identical with

similar characters of the gonococcus, and their fallure to grow on the ordinary culture media afforded additional evidence of their identity. These culture experiments were repeated five days after the first success with a like result, and subsequent examinations of muco-pus from the vagina and from the cavity of the uterus disclosed the presence of the same germ. Microscopic examinations of the ulcerated heart valves showed in them large numbers of diplococci morphologically identical with the gonococcus, decolorizing when stained by Gram's method.

Lydston says: "It needs but a casual survey of the morbid possibilities of specific urethritis to convince one that it is a serious affection. It is an undeniable fact that specific urethritis is the most dangerous of the venereal diseases, for through the medium of its sequelæ and complications the disease is the cause of more deaths than can be justly attributed to the direct or indirect influence of syphilis. By comparison chancroid is essentially a benign disease. Subtract the evil effects of specific urethritis from the list of human ills, and the resulting increase in the longevity and happiness of the race would be marvelous."

Swinburne says "that little dependence can be placed upon the mere cover-glass preparations of urethral threads by staining, and microscopic examination with its attendant time-consuming labor, because the absence of the gonococcus in these preparations examined does not justify us in pronouncing a case free has been recognized now for a long time, and yet it is probably the only method pursued by a majority of physicians to-day to establish the fact of the presence of the germ.

Its absolute worthlessness was startlingly illustrated by Kopp, in a paper read before an association of German Scientists and Physicians, in which he reported seven cases of young men with chronic specific urethritis where he had pursued this method of examination alone, and after making in each case a series of from sixteen to twenty-five examinations, and, not finding the gonococcus, had allowed marriage. In all cases the wives shortly after marriage were found to be infected, gonococci being found in their secretions.

As to culture tests, there seems to be little if any advantage over microscopic examinations. According to Heiman, in sixty-one cases gonococci were detected by means of the microscope in thirteen, while by means of culture media in only fourteen was their presence established. So that unless the method of examination by culture can be proved to be easier, shorter, less tedious, and more certain, unless we

can feel that we can rely upon it with greater confidence, but few will be tempted to add a culture plant to their ever-increasing armament. In medico-legal cases, of course, the culture experiment can not be omitted.

Here we have a disease with its many serious complications that is looked upon by some of the profession as not much worse than a "bad cold." That it is a far more serious disease than syphilis all will admit that have any dealings with the two diseases. As to its curability we all know that very few cases get entirely well. The discharge may cease, but lurking behind, down deep in the submucous tissue and follicles, lie the germs which may enliven the discharge in after years and wreck the family as well as the health of the poor unfortunate woman.

I do not agree with Nöggerath when he says "that specific urethritis is incurable," but I do believe that most of his claims are correct.

During my eight years' experience in treating specific urethritis I have been remarkably successful, especially so in acute cases. The complications that frequently occur have been few. Now as to a real cure—what I mean by a real cure is where the gonococcus is no longer present, and the urine is perfectly clear, showing no threads when voided—I have had but few cases.

That there is, in the majority of cases of specific urethritis, always left a weak spot in the urethra there is no doubt in my mind, and these so-called gonorrheal threads come from that point. It is my belief that the part of the urethra that has been affected rarely, if ever, regains its normal state. The pus and epithelium that go to make up these threads represent white blood cells that are constantly escaping through the weak-walled vessels that supply the affected parts. The mucus is from the neighboring follicles. The young epithelial cells have not the strength to withstand the constant irritation caused by the urine, and are washed out at each micturition.

I have told you what the leading authorities think of specific urethritis, and what we may expect from apparent cures; but my main object in this paper is to enter a plea for a longer observation of patients who come under your care. You can see from the complications that are liable to occur in either sex the great danger there is from apparent cures. Take a given case, say of a young man who comes with specific urethritis. He tells you he must get well of his trouble at the earliest time possible, as he is engaged to be married. You treat

him, say, for five or six weeks; at the end of that time there is no discharge left, no morning drop, no gluing together of the lips of the meatus, nor has there been for a week. Are we doing right to stop at that, to discharge our patient, and tell him he can marry? No, Fellows, no; a thousand times, no. I hold that a physician who does such a thing in these days of advancement commits a crime, for as sure as you are sitting here to-day that man will infect his wife.

I will admit that in years past I discharged patients as cured of specific urethritis after waiting a few days after the discharge had ceased, but I have not been guilty of such a thing since I learned better. In the past three years a number of my old patients have married, but I have made a point in all these cases to send for them as soon as I had learned of their intentions, and in all cases I have carried them through a test that is as near perfect as I know of at this time.

The Test. Having informed my patient of the importance of this test, and what to expect from such a procedure, I have him pass his water, then wash out his anterior urethra (and posterior too, if he has had any trouble in that region) with a warm saturated solution of boric acid; following this, he is placed upon the operating-table and a modified Thompson's divulsor is introduced into his urethra and dilated to four millimeters above his normal caliber. This is done to express the secretion from the follicles and to stir up the gonococci, if any be present, in the submucous tissue. He is then told to arise to his feet, and is given a basin, which he holds under his penis. A four-dram glass syringe with soft rubber tip is now filled with a solution containing ten grains of nitrate of silver to one ounce of distilled water. This is slowly injected into the urethra to distension. Withdrawing the syringe, the meatus is grasped with the thumb and forefinger of one hand while with the other the penis is kneaded along its posterior surface for two or three minutes, then the injection is released and flows into the basin the patient holds. The patient is dismissed, and instructed to hold his water until his return, in five hours, when he will have a profuse discharge. Having cleaned from four to six glass slides, the discharge is collected on the slides, smeared, and fixed with heat, then stained with a solution of methyl blue, washed, dried, and examined. If gonococci are absent your patient is cured, and the irritation caused by the nitrate of silver will subside in a few days. If gonococci are present treatment must be continued until they disappear. When the patient has had posterior trouble the test is a bit longer. Having

examined the anterior urethra and found gonococci absent, the patient is placed upon a table, deep urethra divulsed and injected with the silver solution with the Keyes-Ultzman syringe. The deep urethra is kneaded along the perineum, and the prostatic portion *per rectum*. He is then told to make water in a conical beaker. The sediment is placed upon glass slides, urine evaporated by heat, stained and examined. If gonococci are absent patient is cured; if present, treatment must be resumed until cure is effected.

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¹ Currier. *Morrow's System*, volume one, page 1040.

² Vaughn and Brooks. *Journal of Cutaneous and Genito-Urinary Diseases*, January, 1895.

LOUISVILLE.

DIRECT ILLUMINATION OF THE PLEURAL CAVITY FOR LOCATION OF FOREIGN BODY, WITH REPORT OF CASE.

BY FRANK BOYD, M. D.

The literature covering the subject of foreign bodies in the pleural cavity is very meager, and the following case, which I report, may possibly be of some interest.

J. M., a laborer, aged forty, gave me the following history: He was sitting on a tool-chest near a steam boiler which exploded, hurling him several feet. Aside from being severely scalded he received a wound on the left side of the chest in the interspace between the second and third ribs on a line corresponding with the inner third of the clavicle. This wound was carefully examined by the attending physician, who came to the conclusion that there was no foreign substance remaining in the tissues. The wound closed within a short time, but the patient had a pneumonia, from which he was very ill. Within three weeks from the time of the injury he began to notice oppression and difficulty in breathing, which grew rapidly worse. During a paroxysm of coughing the wound opened and discharged very freely, the pus being extremely offensive. He was considerably relieved after this, but, the discharge still continuing, his physician made an opening in the sixth interspace and flushed the cavity thoroughly. This was kept up for some weeks, and then the drainage opening allowed to close. For a short time he seemed better, but the pus continued to discharge from the wound.

Six months from the receipt of the injury he was received at the infirmary, very much emaciated, pulse 110, respiration 28, and temperature 100°, his general appearance indicating septic poisoning; the sinus at the point of injury was discharging with each inspiration, and during every paroxysm of coughing pus was forcibly ejected through the opening. The discharge was so exceedingly offensive that sheets saturated with creolin solution were kept hanging to make the room bearable. The day after his arrival I resected one and a half inches of the seventh rib a little posterior to the axillary line. The pus, four quarts in quantity, was allowed to escape slowly. The index-finger was introduced, and the pocket of pleura carefully examined, as I felt sure of finding some foreign body. In this I failed. The sinus was enlarged and a drainage-tube passed from above down and through the opening I had made. The cavity was thoroughly flushed with 1-3,000 bichloride solution and the patient put to bed.

He stood the operation, which was done under local anesthesia produced by Schleich's normal solution, remarkably well. During the night the drainage was very great. On the following day the cavity was again flushed, and, as I felt certain there was a foreign body either loose in the cavity or lodged on the costal pleura, I again introduced my finger and carefully searched for it. This method of examination was supplemented with a probe, and it seemed to me I could touch every point in the cavity. These examinations were repeated by myself and others for several days, with negative results.

It occurred to me, in studying this case, that if I could illuminate the cavity it would be possible to locate the trouble, and I at once improvised the necessary instruments. These consisted of an ordinary Polk's cervical speculum, and an Otis-Oberlander urethral lamp. (To those who are not acquainted with this instrument, I will state that it consists of an exposed platinum wire, or lamp, fitted over the end of a flat staff, under which flows a current of cold water to keep the staff from heating. This staff is $6\frac{1}{4}$ inches long, and is very slender.)

After thoroughly cleansing the cavity I introduced the largest size speculum, the nurse holding it in place; with the patient sitting in an upright position, the lamp was introduced, and with my eye close to the speculum I could clearly see an area of the pulmonary pleura a little larger in circumference than a silver dollar. In this way I examined almost every part of both the pulmonary and costal pleura. A probe introduced through the sinus at the seat of injury to a depth of

two inches could be clearly seen. After searching for some time I perceived a blackish iron disk placed at an angle across a rib. Pushing the lamp closer, the size and shape could be clearly outlined. No evidence of its presence could be detected externally. The rib and the point where the metal was situated were carefully located, and on the following day the rib was resected and the metal removed. This proved to be the outer rim of a boiler rivet $1\frac{3}{8}$ inches in length, and $\frac{3}{8}$ inches in width and thickness, rough and crescentic in shape. Both ends were covered by the costal pleura which held it in place. While the rib had not been fractured, necrosis existed at the point where the metal crossed it. The old sinus was curetted, and within a few days entirely closed. The lower opening was also allowed to close.

The cavity was irrigated daily with the bichloride solution, and allowed to drain from the opening at the point of the last resection. The cavity rapidly diminished in size, the discharge ceased, and the patient returned to his home, and is at the present time in perfect health.

So far as I know the introduction of a lamp into the pleural cavity has not been done heretofore for any purpose, and I am aware that the necessity for such examinations will be very rare. I believe, however, from my observation in this case, that granulating surfaces and other diseased conditions of the pulmonary and costal pleura could be curetted, and, if necessary, treated by topical application, possibly relieving some cases of empyema that would otherwise require more extensive surgical procedures.

PADUCAH, KY.

PARALYSIS OF THE FOREARM FROM BICYCLING.—Dr. Destot has published in the *Gazette des Hôpitaux* an account of his own experiences. An abstract of the paper appears in a recently published number of the *Neurologisches Centralblatt*. After a long ride he experienced paresthesiæ in the fourth and fifth fingers, with impaired sensibility and paresis in the interossei, lumbricales, and the adductor pollicis. This paresis was followed by distinct atrophy in the affected muscles. He considers the affection to be the result of pressure upon the branches of the ulnar nerve, aggravated, doubtless by the vibration occasioned by bad roads. He also considers that predisposing factors existed in the softness of the skin of the hand and in the exhaustion of the muscles and the consequent loss of protection to the nerves lying in or under them.—*Lancet*.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, May 28, 1897, the President, Samuel G. Dabney, M. D., in the chair.

Absence of the Internal Organs of Generation in a Female. Dr. Turner Anderson: I want to present to the Society to-night a young woman whom I have known for a number of years, whom I take to be almost if not absolutely devoid of gender. I use the term young woman in its qualified sense. The patient, so far as I am able to discover, has an absolute absence of vagina, uterus, tubes, and ovaries. When we remember how these internal organs of generation are formed, by the two original parallel tubes, which we call the ducts of Muller, we can readily understand why there may be in some cases an entire absence of the organs mentioned. And when we remember these things we can readily understand how various anomalies present themselves in the developmental processes connected with the internal organs of generation from the ostium vaginæ to the ostium abdominale. When these tubes do not properly unite in the natural process of development, we can see how these various malformations are produced.

I present this case as one of more than ordinary interest, and believe that I stated correctly when I said there was an absolute absence of vagina, uterus, tubes, and ovaries. We are told by the authorities that this condition may exist without there being any thing strange in connection with the patient; in other words, that the woman is not necessarily a virago who presents this curious anomaly. In this case every thing else seems to be normal; there are perfectly developed mammæ; the mons veneris is normally developed and covered with a luxuriant growth of hair; the external organs of generation are perfect in appearance; the clitoris is normally developed, and the labiæ present the appearance of a perfect woman.

She is now thirty years of age. At the age of twenty she was married. Her husband lived four years. He was of an affectionate, lovable nature, and was very fond of his wife, but naturally never had perfect sexual intercourse with her. She states that he died after four years

of married life of some wasting disease, supposed to have been phthisis. That is the social side of the case. Since that time she has been a widow. She is a very modest person, is well connected, and has been well raised. She states, in connection with her marital relations, that she has never known what a sexual orgasm was; that she has never had any desire whatever for the opposite sex. I inquired particularly upon this point, asking for information from a scientific standpoint, and she declares she has never experienced any disposition toward the opposite sex; that she did not experience this even while she was married.

We know that cases of this kind are not very uncommon; we know also, from reports in the literature of the subject, that women have been found in whom there is an absence of vagina who practiced sexual intercourse through a dilated urethra; especially is this true in prostitutes where there is entire absence of the vagina, the sexual relation has been kept up through an enormously dilated urethra. There is nothing of the kind in this case.

Now this patient is in an adjoining room prepared for examination, and I would like for all those interested to make a very careful investigation of the case. One other feature of interest deserves mention. There is a young man in this city who is devotedly in love with this woman and is very anxious to marry her. She consulted me but recently to know whether any operation was possible by which she could be placed in proper condition for marriage. There has never been any menstruation, vicarious or otherwise, and no nervous disturbance of any description at any time which would indicate evidences of the menstrual molimen. Her mother is a midwife, and, strange to say, she did not seem to know there was anything the matter with this child, never having made an examination of the genitals except externally, even though menstruation was never established, and, while she knew of course that the girl had never menstruated, she was allowed to marry, as already stated, at the age of twenty years.

Discussion. Dr. T. S. Bullock: I have nothing to add except to state that I believe at *post-mortem* examination there will be found some rudiments of the internal genital organs; I can not understand otherwise what would give rise to the mammary development, which is certainly normal. And I believe the history of all such cases is that, although there are no internal organs of generation which can be

detected during life by the sense of touch, either by rectal examination or otherwise, still a careful *post-mortem* reveals the presence of rudimentary organs. In this case they must be extremely minute, as no evidence of their presence can be detected by the most careful manipulation.

Dr. J. G. Cecil: In reference to the suggestion made by Dr. Anderson, I do not see how there is any possibility of benefiting this woman by operative interference. From the conformation of the parts I do not see how there is any prospect of making any thing like an artificial opening corresponding to what would have been the vagina. The vagina is apparently about as thoroughly and absolutely absent as it could well be. It is hard to understand why this woman should have developed so perfectly in the absence of those organs which are supposed to make the woman; there is perfect mammary development, normal growth of hair on the symphysis pubis, and her general contour is distinctly feminine. If she lived with a man for four years I can readily see how any attempt at copulation might result in dilatation of the urethra, and the wonder to me is that it did not become larger and cause her more suffering than it appears to have done.

Dr. A. M. Cartledge: The case is certainly very interesting, and I have never seen another exactly like it. I recently operated upon a case where there was absence of one tube and ovary. In looking up the literature of the subject at that time, in all cases where there was absence of the uterus they were characterized by absence of the appendages of both sides. It seems to me, if a woman had ovaries, or even supernumerary ovaries, she would at least have what we recognize as the menstrual cycle, some nervous manifestation which would represent menstruation. In the case before us I see nothing to be done; I believe the case can be classed, as well as any that has ever been reported, as entire absence of the internal organs of generation. I made a thorough and painstaking examination and was unable to detect either uterus or appendages. It is one of those cases where it would be entirely proper under the circumstances, if marriage is contemplated, that the other contracting party should be advised as to the existing conditions before entering the marriage bond.

Dr. Louis Frank: In making a rectal examination of the case I find no uterus, though I believe I detected a small body which feels very much like an ovary. The only feature which would contra-indicate this, as Dr. Cartledge has mentioned, is the fact that the patient has

never had any nervous symptoms or any thing referable to an attempt at menstruation. Still it is possible she might have a rudimentary ovary without any such symptoms. Because we have an absence of uterus, tubes, and vagina, does not necessarily mean that there is absence of the ovaries, as they are developed from entirely different structures. I have seen one case in which there was no vagina, although the woman was otherwise perfectly developed, having normal uterus, ovaries, and tubes, as afterward proven by the fact that she conceived and gave birth to a child, an operation having been performed to establish an artificial vagina. Another case I saw with Dr. Leachman, in which the vagina was apparently obliterated, though by some manipulation the two walls were found to have grown together and were easily separated. In this latter case no ovaries could be felt, though we could detect, as often found in such cases, some muscular bands, probably consisting of a rudimentary uterus composed of muscular fibers.

The case under discussion is exceedingly interesting, and, like Dr. Cartledge, I believe if marriage is contemplated the other party to the contract should be informed of the condition of things.

Dr. Wm. Bailey: The case is interesting indeed, but it seems to me almost impossible that such development should occur without what is recognized as the prime source of female development, and I think it might be regarded as exceedingly difficult to determine whether there is any development of the ovaries or not. We are deprived of the means by which perhaps we can best reach the ovaries, that is the vagina. We can not make an exploration in this case with the degree of satisfaction that we could if the patient possessed a vagina; examination becomes much more difficult because of the existing conditions. Again, her absence of desire or regard for the opposite sex should not be regarded as very strong positive proof that she has neither ovaries nor uterus, because many women are really and practically devoid of such desire where there is normal development of all the sexual organs. I believe the question in this case as to whether she possesses ovaries, tubes, etc., will always remain unsolved, unless a *post-mortem* examination might determine whether there is any development.

Dr. J. A. Larrabee: According to my reading the case is quite unique in this respect, that by an ocular inspection no one would suspect the absence of any necessary organs, nor would this information be obtained by external examination without manipulation, the external genitalia are so perfect. I believe that not a single case has been reported pre-

vously exactly like this. Rectal examination ought to reveal the ovaries; I do not see why there should be any difficulty in recognizing them through that channel as well as through the vagina; certainly they could be detected if present. It is a very anomalous case, and I think the proposition of Dr. Cartledge, that if marriage is being thought of the other party should be made acquainted with the condition beforehand.

Dr. J. M. Bodine (visiting): I made a rectal examination, and am perfectly satisfied that there is absence of uterus and its adnexæ. My hand, on the lower part of the abdomen, was not separated from my examining finger within the rectum by a distance greater than the thickness of the rectal abdominal walls. I feel sure there is entire absence of all the internal genitalia.

Dr. Turner Anderson: I am indebted to the gentlemen for their examination and discussion of the case. As stated in my opening remarks, I believe the case is one in which there is entire absence of all the internal organs of generation. I made a very careful examination, with a sound in the bladder, *per rectum*, etc., and exhausted all the ordinary means of discovering even a rudimentary condition of these organs, with a negative result. While such cases are not common, still they are occasionally encountered. Such cases have been reported in the literature from time to time, and are attributed to absence of embryological structures which go to form the internal organs of generation from the vulva to the ostium abdominale.

The urethra, I neglected to say, in the case before us is in the normal situation, and seems to be about normal in size.

Perfect Fetus at Eleven Weeks Inclosed in the Amniotic Sac. Dr. Turner Anderson: The specimen which I present for your examination is a perfect fetus inclosed in the amnion and amniotic fluid, which I think is a very pretty specimen, and one which speaks for itself. It is at the tenth or eleventh week of utero-gestation, and I was fortunate enough in dealing with it to deliver without rupturing the amnion. That part of the amnion which covers the uterine portion of the placenta was peeled off in some mysterious manner without rupturing the amniotic sac, the placental attachment being torn loose in that way. I present the specimen simply as one of an unusual character; it is the first of the kind that I have ever seen. We can very plainly outline by a dark spot the development of the liver; we

can also see that the cord is twisted around the right thigh of the fetus, we can without difficulty make out the two arteries and the single vein. The placenta was delivered two days afterward.

Dr. J. A. Larrabee: I have a specimen at home which I intended to bring to the meeting to-night, and which is almost an exact counterpart of the one before us, except mine has not been mounted. It is about the same size and equally as perfect.

Dr. T. S. Bullock: It is the most beautiful specimen I ever saw. I have seen several smaller ones but not so perfect as this. We have here a beautiful demonstration of the circulation through the cord, and by turning the specimen so that we get the proper light on it we have almost a perfect skiagraph showing all the bones and other structures of the body.

Dr. T. L. McDermott (visiting): I remember having delivered a child at full term under similar circumstances many years ago. A man came to ask me to attend a case of labor; he came running back after a few minutes and told me to hurry, as the child had already been delivered. It must have taken me from five to eight minutes to walk from my residence to the place where the labor was going on. I found that the membranes and the child had all been delivered at once; I found the bag of waters in the bed; I took my finger and ruptured it; the baby rolled out, and, strange to say, it lived. The question is how it managed to live during that time; the membranes had been separated fully eight minutes. Another question comes up here, viz., how long is it possible for a child to live in the bag of waters after separation of the membranes, and what is the longest time recorded between separation of the membranes and delivery of a living child.

Dr. J. A. Larrabee: The same law would apply as in drowning, but I do not know the exact length of time.

Dr. Wm. Bailey: I would like to ask the question as to when the placenta was separated; it may have been that it was not separated until just the time Dr. McDermott arrived on the scene.

Dr. Turner Anderson: Cases do sometimes occur where every thing is discharged, the uterus giving up its contents at full term, without rupture of the amniotic sac, the placenta and every thing else being discharged *en masse*. They occur quite frequently at seven months. In this connection I am reminded of something I read in one of our medical journals, not long ago, where persons have been resuscitated after immersion in the water for seven minutes. Five minutes, I

believe, has ordinarily been considered the limit, but seven minutes, according to the report recently made, seems to be the present limit.

Dr. Wm. Bailey: The same thing would hold good in breech presentation where the head interrupted the circulation in the cord. I think Dr. Anderson is right in that, if the head completely interrupts the circulation, if he does not deliver in five to eight minutes the child is apt to be lost.

Dr. Louis Frank: I remember having seen one case in which twin children together with the membranes and placenta were expelled at one time. Both children were born dead, expulsion being between the eighth and ninth calendar month. The woman was syphilitic; the pains came on rather hurriedly and only lasted a short time; both children, the unruptured membranes, and the placenta were expelled *en masse*.

Cancer of the Rectum, with Secondary Involvement of all the Abdominal Organs, Especially the Liver. Dr. J. A. Larrabee: This specimen is not at all anomalous except in one respect: we do not often have an opportunity to study the natural history of disease of this kind, because it is very rare that the prime growth would be suffered to develop to such extent and life be suffered to terminate without some surgical interference.

The patient from whom this specimen was taken *post-mortem* was a man seventy-nine years of age, who had developed a cancer of the rectum one year and two months previous to his death; mark the length of time. The symptoms of cancer of the rectum were mucus and bloody discharges, pain, etc., and the diagnosis was undoubtedly correct. He was a peculiar individual, and would not allow a physician to see him, and the disease was allowed to take its course. Had it not been for me he would have died without being seen by a physician. Toward the last his sufferings became so great that I saw him, and, as indicated, was the only physician who saw him during his entire illness. I recognized the condition at once as an extensive hardening of the liver from some cause, which I supposed to be cancer. Examination of the rectum showed that the cancerous disease there had broken down into an ulcerating mass, and the condition was one terrible to contemplate.

The *post-mortem* was made by Dr. James Bullitt, and was extremely interesting because of the wide distribution of the cancer cells. The

liver, which I present for your inspection, you will observe is enormously enlarged, and weighs twelve pounds. Its dimensions are, convex border, fifteen inches; transverse concave, ten inches; it occupied almost the entire abdominal cavity; the mesenteric glands were as large as hen's eggs and were extensively infiltrated; in fact, all of the viscera were more or less infiltrated with cancer. A strange thing about the case is that there was no ascites; the abdominal cavity was perfectly dry; there was not even the normal amount of liquid. I think it is a peculiar feature that the disease should have run its entire course without there being any ascitic accumulation. There was no anasarca. You will notice the appearance of the liver; the gall-bladder is enlarged and distended, but contains no calculi. The liver is simply an enormous cancerous mass. The spleen was normal, being the only organ that did not show evidence of cancerous infiltration. No examination was made of the thorax, but, as already stated, all the abdominal organs were infiltrated with cancer.

I report the case and exhibit the specimen to illustrate the ultimate results in cases of cancer and the extent to which the liver has been infiltrated. Secondly, the specimen has no interesting feature except its enormous size and the extent of the cancerous involvement. The skin of this patient had a characteristic cancerous hue, but there was no evidence of icterus about the conjunctivæ, which is rather remarkable.

Discussion. Dr. J. A. Ouchterlony: Of course this cancer of the liver must have been secondary to the cancer of the rectum. The absence of ascites is an interesting fact, and I think it is usually considered one of the points of differentiation between cancer of the liver and other enlargements of the liver attended with great deviation from the normal outline, as, for instance, chronic interstitial hepatitis or cirrhosis. It would be interesting to know what length of time it took for the liver to attain these enormous dimensions. Usually in cancer of the liver you do not have jaundice until cancerous nodules develop which cause pressure upon and interference with the escape of bile into the duodenum.

Dr. J. M. Williams: I would like to ask Dr. Larrabee the duration of the cancer of the liver. He stated it was fourteen months from the appearance of the cancer of the rectum until the man died, but did not say for what length of time the liver was involved.

Dr. T. H. Stucky: How soon after recognition of the cancerous growth in the rectum was it determined that there was a secondary involvement of the liver? Further, were any operative measures carried out upon the rectum?

Dr. J. A. Larrabee: The points raised by the gentlemen who have kindly discussed the case, I admit, are pertinent, but they could not be definitely determined, and can not be specifically answered, for the reasons already stated. This man was determined to die without a doctor, and until he was almost moribund would not accept any medical attention. I should say, by what I learned from his wife, that the liver manifestations had been present fully six months, although this is largely a matter of conjecture. He had no physician until the morning before his death, and therefore much of the history is lost. I think there can be no doubt about the date of the rectal cancer being as stated, because a year ago it became so terrible that he had a great deal of pain, mucous and bloody discharges, etc., but the date of the liver cancer can not be accurately fixed, and I regret very much that such is the case.

Cancer of the Stomach. Dr. J. A. Ouchterlony: This specimen, which I wish to exhibit to the Society, is one of cancer of the stomach. The patient was a female close on to seventy years of age, who had been complaining for a number of months when I first saw her, which was about this time last year. At that time she presented a peculiar appearance: There was a large tumor occupying the left flank, that presented a most striking resemblance to the spleen, even so far as the splenic fissure was concerned. It was hard, it was smooth, and it was movable to a considerable degree. There was no tenderness over it particularly at that time, and there was considerable enlargement of the right side also; that enlargement, however, was not movable and seemed to be in close relation to the liver. It was difficult to make out its exact connection, if any, with that organ. She suffered a great deal of pain, but there was very little sickness at the stomach; there was little vomiting, which occurred only at considerable intervals. There was no coffee-ground vomiting at that time, and there had been no melena, but she suffered from diffuse, rather severe and quite extended radiating pain in the abdomen. Her appetite was poor. The age of the patient made it exceedingly probable that the trouble was malignant, and I thought that it was a sarcoma of the spleen; the resemblance to the

spleen was so striking that I had no doubt at all as to this fact. Dr. Lucas saw the case with me repeatedly, and will tell you the impressions he received from his frequent examinations of the patient. After we had been in attendance upon the case for some time we noticed that the enlargement on the right side extended also toward the central portion, and after a while it was evident that the liver was very much enlarged, though it was perfectly smooth, and what we had thought was an enlargement of the right kidney seemed possibly to be simply a prolongation of the right lobe of the liver in a downward direction. Dr. Anderson saw the case once only, and it was his opinion that it was the liver. The tumor in the left flank impressed Dr. Anderson as being probably the kidney; he said it felt like that to him.

The patient went on; the tumor enlarged steadily, and so did the liver; she now vomited a number of times. There never was any coffee-ground vomiting, but there was melena; and the pain now being located in the pit of the stomach convinced us that the stomach must have become involved. At the same time, at no period of her illness did we feel inclined to believe that this tumor in the left flank was any thing but the spleen. Its hardness, its smoothness, and its mobility all pointed in that direction. The fact that the bowel did not lie in front of it seemed to preclude the likelihood of its being an enlarged kidney; and, assuming that it was malignant, the mobility of it also militated against that view, for usually in my experience all forms of malignant enlargements of the kidney very speedily become firmly fixed.

Two weeks ago to-day we made the autopsy, and found that the supposed enlargement of the spleen was simply an enormous cancer of the cardiac end of the stomach. It had broken down and ulcerated so that it no longer presents any thing like the appearance that we observed during life.

The peculiarities of the case are, first, that, contrary to what is usual when the cardiac end of the stomach is involved, the esophagus is not in the least implicated; secondly, that the pylorus was perfectly patulous. The thoughts suggested by this case are, what are the difficulties in the way of a diagnosis of malignant disease of the stomach. First, in the incipiency of the disease, in the earlier stages of cancer of the stomach, often you have symptoms that are very obscure, not at all distinctive, and such cases are not necessarily attended with the presence of any tumor. Secondly, the continued absence of symptoms of cancer of the stomach. The literature of the subject shows cases where

often up to the time of death they did not give symptoms pointing to gastric disease. Von Ziemssen in his work on medicine mentions a case of this kind. Thirdly, the location of the malignant neoplasm. For instance, when it is located in the lesser curvature, especially before ulceration has taken place, and when the growth is of small dimensions, it is absolutely inaccessible. I have seen cases of the kind where the stomach was bound down behind the liver up against the spinal column in such a way as to make it impossible to find any tumor at all. Then, again, the presence of malignant disease of other organs, where by the presence of adhesive inflammation the structures are matted together.

I remember a case of the kind that occurred in my ward at the City Hospital, where the intestines and other abdominal organs were so matted together by secondary and chronic inflammation that we could not possibly make out exactly where the original and chief seat of the trouble was, and where, owing to the interference with the mobility of the abdominal walls and the stomach itself, vomiting did not take place. There was also great displacement of the organs. It is a common thing to find that the cancerous neoplasm, especially at the pylorus, by the sheer weight causes such traction upon the organ as to displace the end downward and even to the left to such an extent that the stomach with the tumor may be found in the left iliac region. A case of this kind was reported by me, I think to this Society, a good many years ago, where the patient was brought to me and the attending physician supposed he had to deal with a malignant spleen. The organ was very hard, very smooth, and very movable, and right in the left iliac fossa. In that case there was only a cancer of the pylorus, but there was such fibroid degeneration of the walls of the stomach as to make it impossible for the organ to collapse; it was like a cartilaginous shell—finally the presence in an unusual site of the neoplasm, as in this case. So far as the physical signs are concerned the case is absolutely unique in my experience; I have never seen another case of cancer of the stomach attended with such a peculiar condition of affairs.

Discussion. Dr. J. G. Cecil: The case reported by Dr. Ouchterlony is one of unusual interest. I have never seen a cancer of the stomach affecting that portion of the organ alone which would offer so many very obvious difficulties in the diagnosis. I was thinking, all the time while Dr. Ouchterlony was making his report, that we would have to

fall back on the plea frequently expressed by the surgeons, that one can never be certain of the exact condition in the abdominal cavity until it is opened. As shown by the report of the case, and as the specimen clearly demonstrates, I can see how it would be practically impossible to make a diagnosis in such a case.

Dr. A. M. Cartledge: In this connection I would like to call attention to the long continuation of carcinoma of the alimentary tract oftentimes without the production of any of the characteristic symptoms. I am reminded of a case I saw last year. I was called in consultation to see a woman, aged sixty years, with a large tumor in the left iliac fossa. Clinically in this case the tumor was that of a malignant growth of the alimentary tube, on account of the fact that it was resonant on percussion. I diagnosed carcinoma of the descending colon. Her physician had made a similar diagnosis, and she had refused operative interference. This woman stated positively that the tumor had been noticed first four years previous to that time. Six or eight months after I first saw the case in consultation, the tumor having increased greatly in size, she returned to me and requested that an exploration be made. There had never been any gastric symptoms. An exploratory incision was made, and it proved to be a pyloric carcinoma as large as my two fists, and occupied the left iliac fossa. The organ had remained patulous for a long time, which prevented the occurrence of the usual gastric symptoms. The woman ultimately died from the effects of the disease. The tumor was more or less movable, and was always resonant on percussion up to a short time before the operation.

Dr. C. G. Lucas: In the case reported by Dr. Ouchterlony I was particularly struck with the mobility, the hardness, and smoothness of the tumor, and the fact that gastric symptoms were lacking even after the patient had been sick for six months. To all appearances it was a typical case of malignant disease of the spleen. At no time could we get any resonance whatever, which seemed to rule out the kidney. It was, I think, two weeks before her death that she developed melena and other evidences of involvement of the stomach.

JOHN L. HOWARD, M. D., *Secretary.*

foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Another New Hospital; Conference on Vaccination; The Increase of Lunacy; Enlargement of University Hospital; Hereditary Insanity; A Green Cross Society; Land Law Reform Association.

Princess Louise has opened a hospital which has been designed for the inauguration of a new treatment in curative surgery. Wounds and ulcers are in this process encouraged to heal by oxygen gas mixed in equal parts with purified air, and applied in air-tight chambers which take the place of bandages. Dr. George Stoker is the suggester of this treatment, and was led to try it by seeing how healthily the sword wounds of Zulus and Turks, sustained in battle, healed undressed. A wounded Zulu, it appears, knows enough of aseptic theory to make his way to a hill-top where the atmosphere is clear of dust.

A conference of medical practitioners has been held at the Town Hall, Leeds, to consider the report of the Royal Commission on Vaccination. The object of the conference was stated to be to ascertain the views of general practitioners and public vaccinators, in order that recommendations might be made as to future legislation on the subject. Eleven of the most important points in the commission's report were discussed. There was a general opinion in favor of the use of calf lymph, and the cheap and inefficient vaccinator came in for a good deal of condemnation. There was much difference of opinion as to the age limit. Some speakers holding that it should be extended from three to six or twelve months, but the vote taken showed a large majority in favor of the limit remaining at three months. In reference to a suggestion to empower magistrates to suspend infant vaccination, two or three speakers condemned what is known as the "conscience clause," and one doctor stated that in 2,400 vaccinations he had not found a case of insusceptibility, and he doubted whether such a thing existed. It was decided to recommend the vaccination of children received into any school or institution who had not been efficiently vaccinated before, and the revaccination of children at schools and institutions on their attaining the age of twelve years, or ten years after their first vaccination, whichever should come first, and of all persons on entering the public service. Other recommendations were that sanitary authorities be empowered to require vaccination and revaccination of persons immediately exposed to infection in an outbreak of smallpox; that calf lymph be pro-

vided under necessary precautions; that every vaccination certificate bear on the face of it the number of successful vaccination marks; that the vaccination laws be administered by those authorities to whom the execution of other measures of protective medicine are intrusted, and that the Infectious Disease (notification) Act be universally applied, isolation hospitals for smallpox be provided, compulsorily, and tramps and common lodging-houses be subjected to more stringent inspection.

The War Office has just approved of a scheme for raising a reserve of nurses to supplement the regular military nursing service in case of war. The body is to be distinguished as the Army Nursing Reserve, and will comprise one hundred or more of competent ladies who, on being called, respond for duty. But it appears to be considered that the remuneration offered is so small that the scheme will collapse, or at any rate up to the present nurses appear to be in no great hurry to take advantage of the scheme.

The Commissioners in Lunacy have, after careful investigation, made a report upon the question of the increase of lunacy, the issue being satisfactory. Lunacy is not, it appears, increasing in a manner calculated to occasion any alarm. The apparent increase is due, among other causes it appears, to greater accuracy of registration, extended views as to what constitutes insanity requiring confinement, the retention in workhouses of a diminished proportion of pauper lunatics, the increased popularity of asylums, the greater density of population in the large towns, making it less possible for poor lunatics to be kept at home, the larger number of cases of alcoholic insanity now treated in asylums, a decrease in the death-rate, and a decrease in the recovery-rate. The last two causes imply an accumulation in the asylums of lunatics, and the accumulation becomes larger because of the decreasing number of those who are discharged as "not cured" because they are not dangerous.

With reference to the reconstruction and enlargement of University College Hospital, it is stated that all the land for the new hospital has been secured, and the questions of light and air have been settled with the adjoining owners. The demolition of one fourth of the houses forming part of the addition has already been commenced. The plans have been arranged that a much finer entrance be made for the out-door patients, and the patients while waiting to see the medical staff will be most comfortably provided for.

Observations have been made in 1,039 cases of insanity at Essex County Asylum to determine the question of the frequency of hereditary insanity. It has been found that the females suffer most from the insanity of the parents, and the father's disease is the more frequently communicated. Thus 106 insane fathers had 117 sons and 138 daughters afflicted, while 256 mothers affected had 113 sons and 182 daughters diseased, thus confirming the Darwinian theory that the taint of the father goes to the male, and that of the mother to the female.

A London medical man is collecting statistics concerning the existence of consumption in Japan, with a view of determining the difference, if any, between the prevalence of the disease in a non-milk-drinking country like Japan and in other countries.

A widow living at Billingham in Lincolnshire, eighty-six years of age, who has been toothless a number of years, has just indulged in the strange freak of cutting a new front tooth.

Originating with the Austrian Alpine Club, a Green Cross Society has been established to give succor to Alpine climbers and excursionists in mountainous countries. The intention of the society is to establish huts on high mountains, in which shall be kept relief stores and emergency requisites.

A conference under the auspices of the Land Law Reform Association, on the condition of the agricultural laboring population is being held. The chairman said the question was indeed so serious as to call for immediate and special attention. He pointed to what had been done in Ireland under the Irish Laborer's Cottage Act, and suggested means should be taken to obtain similar advantage for the English laborer.

LONDON, May, 1897.

EXAMINING PHYSICIAN ONLY AN AGENT.—An examining physician employed by a life insurance company examined an applicant for insurance on January 30th, and on February 4th returned to the company a certificate that he had found the insured to be in sound health. February 11th the company issued a policy containing the provision "that no obligation is assumed by this company prior to the date hereof, nor unless on said date the insured is alive and in sound health." It was subsequently contended that the company was bound by the examination made and reported by its examining physician, and that it should not be allowed to prove by another physician that the insured was not in good health when the policy was issued. But, aside from the possibility that the insured might have been in good health January 30th and not on February 11th, the supreme judicial court of Massachusetts holds, *Gallant v. Metropolitan Life Insurance Co.*, decided October 23, 1896, that the examining physician was only the agent of the insurance company to make the examination and report the result of it. He had no authority to make a contract of insurance for the company, in which the results of his examination should be conclusively taken by the company to be true. The company made its own contract, a part of which was as above. If, in fact, the insured at that time was not in sound health, the court therefore holds, the company was not liable on the policy, and this fact could be shown by any competent evidence.—*Journal American Medical Association.*

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNĀ."

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THE AMERICAN MEDICAL ASSOCIATION.

The semi-centennial of the American Medical Association was celebrated at Philadelphia (1-4th instant) with becoming dignity and jubilation, while the offerings laid upon the altar of medical science were of sterling worth. Indeed the Association comes to the acme of its manhood full of honors, having made a brilliant record and with promise of still greater achievement.

The address of President Senn was historical, as it should have been, and teems with fine thought and patriotic sentiment.

After a cursory review of the splendid developments which have taken place in medicine since the birth of the Association, and a touching tribute to the four distinguished physicians who attended the initial meeting, and have lived to see it celebrate its fiftieth year, Dr. Senn gave a brief account of the organization of the society:

The founders of the American Medical Association were deeply impressed with the dignity and responsibility of our profession; they had for their object a higher standard of medical education, a more general diffusion of medical knowledge, and the creation of a respectable American literature. The idea of organizing a national medical convention originated in the New York State Medical Society, and was discussed for the first time at the

meeting in 1844. At that time quackery in its worst forms prevailed; the services of the honest physician were undervalued, and his standing in the community compromised on all sides by his less conscientious competitors with and without diplomas.

Although the idea of a national convention arose in the New York State Medical Society, the most violent opposition to the organization of the American Medical Association came from New York State.

A meeting was held in Philadelphia, May 5, 1847, in which the organization of the Association was completed. It was attended by two hundred and fifty delegates. The annual meetings were held with regularity and with increasing attendance until the great War of the Rebellion drew a line between the North and the South, which temporarily parted the profession. No armies ever enjoyed to a greater extent the blessings of military surgery than did those of the North and South. The work done by the medical officers on both sides will always occupy an honorable position in the annals of military surgery. The war interrupted the meetings of the American Medical Association, but they again resumed their annual course at Boston in May, 1865. This meeting was attended by two hundred delegates.

The bad feeling engendered by the war, the trial, expulsion, and reinstatement of Dr. Montrose Pallen, and the influence of the Association in promoting brotherly feeling among those whom the war had sundered, and the fact that its members applied the first measure of healing to the wounded body politic, and took the first step toward "the bridging of the bloody chasm," were proudly passed in review.

The influence of the Association upon medical education was considered briefly but pointedly.

In the reconstruction of the college curriculum, the elevation of the standard of preliminary education, the cultivation of laboratory and clinical work, and the lengthening of the school term, the mission of the Association is about fulfilled.

We have medical schools that are on a par with those of the oldest nations. There is no further excuse for our medical students to seek foreign universities to obtain a thorough medical education. Some of the very best practitioners of the United States are men who graduated in our own schools and who have never left their native soil. It requires no stretch of imagination to predict with certainty that our country will become the center of medical education within twenty-five years and that our medical institutions will be sought by foreign nations, as they will in the course of that time furnish facilities for teaching far in advance of those of any other country.

The president pays deserved tribute to the Association Journal, which, under recent brilliant management, takes rank with the best journals of the world. The advantages of giving the papers and proceedings of the Association circulation and dissemination through a journal instead of burying them in a volume of so-called "Transactions," which no one outside of the coterie interested ever reads, is duly set forth by the president.

The published "Transactions" and the volumes of the Journal of the American Medical Association are a mine of information for the general practitioner as well as the specialist, as they contain valuable contributions to medical literature, embracing all the departments of the healing art and the allied sciences. Many of the contributions have found a permanent place in our general literature and must be referred to by authors who write on the subjects of which they treat. *It is a source of regret that many of the most important and interesting papers read during the early history of the Association have been buried in the volumes of the "Transactions."**

Prize essays, American Medical Literature *vs.* Foreign Medical Literature, the proposed Rush Monument, the Association dinner, and numerous other topics were passed in review by the very practical surgeon and speaker, who brought his remarks to a close by an appropriate appeal that the Association provide itself with a

PERMANENT HOME.

One of the present needs of the Association is a permanent home, with an editorial office and press-room for its official organ, a hall for the meetings (to be held at least every three years), which could also be utilized for the meetings of local societies, a library-room for American medical literature, and a memorial hall for paintings, busts of distinguished members of the Association, and a room for a collection of indigenous medical plants and of surgical instruments, the inventions of American physicians and surgeons. The site for such a home should be decided by a vote of all members of the Association. The present financial status of the Association justifies the taking of the necessary steps to bring such a project into effect at an early date. He was sure the profession of the city that will be honored by becoming the site of such a wonderful institution will contribute liberally toward erecting and maintaining it. Such a modern Æsculapian temple would soon become the Mecca of those in search of American medical literature, and a rich storehouse for every thing pertaining to the medical history of this country.

*The italics are ours.—[EDS. AM. PRAC. AND NEWS.]

THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

The meeting of this Association, which was simultaneous with that of the American Medical Association, June 1-4th instant, was characterized by a full attendance and important work. It is clear that the schools are leaving nothing undone that can contribute to their fullest efficiency.

The able address of the retiring president, Prof. J. M. Bodine, of the University of Louisville, appears elsewhere in this issue. It is a strong, practical, and logical presentation of the question of medical education as it affects the American school and its great staple products the American physician and surgeon. The address is moreover philosophical in construction, aphorismic in manner, and literary in finish. We commend it most heartily to our readers.

HONORS TO LOCAL CELEBRITIES.

On the 22d instant the Clinical Society of Louisville, in conjunction with many of our physicians and surgeons, tendered a banquet to Dr. George W. Griffiths, Surgeon-General of the Kentucky State Militia; Prof. Joseph M. Mathews, M. D., first Vice-President elect of the American Medical Association, and Prof. William L. Rodman, A. M., M. D., President elect of the Surgical Section of the American Medical Association, in recognition of recent honors conferred upon these distinguished gentlemen. The banquet was presided over by Prof. William Bailey, A. M., M. D., first Vice-President elect of the American Association of State Boards of Health.

The viands and the potations were fitted to the medical gustatory sense, and the "feast of reason and flow of soul" engendered by the occasion was ordered as follows:

Professional Fellowship, Dr. William Bailey; The American Medical Association, Dr. J. M. Mathews, Vice-President; response, Dr. L. S. McMurtry; The Surgeon-General of Kentucky, Dr. George W. Griffiths; response, Dr. I. N. Bloom; The Surgical Section, A. M. A., Dr. William L. Rodman, Chairman; response, Dr. A. M. Cartledge; The Medico-Chirurgical Society, Dr. J. B. Marvin; The Clinical Society, Dr. T. P. Satter-

white; The Surgical Society, Dr. H. H. Grant; Medical Journalism, Dr. H. A. Cottell; The Mississippi Valley Medical Association, Dr. T. H. Stucky.

The profession of this city may surely consider itself honored in the recent many honors which have come from abroad to so many of its worthy members.

Notes and Queries.

NIEMANN'S TUBERCULOSIS ANTITOXIN.—Niemann states that he has succeeded in isolating an antitoxin from the serum of young goats that had been inoculated with increasing doses of a tuberculin prepared from a virulent culture of tubercle bacilli. From experiments on guinea-pigs, in which tuberculosis had been produced by inoculation, he claims to have demonstrated that his goat's serum contains an antituberculin. Animals showing tuberculous ulceration at the seat of inoculation, with tuberculous enlargement of the glands, were cured by inoculating them with the goat's serum, the ulcer healing and the glandular enlargement entirely disappearing. Niemann also obtained good results in the treatment of tuberculosis of moderate severity in human individuals. Under treatment the general condition of the patients showed marked improvements, the tubercle bacilli disappeared from the sputum, and the cough and expectoration considerably diminished. High elevation of the temperature rarely followed the injection of the serum, even in large doses, while albuminuria was never observed.—*Münchener med. Wochenschrift*.

DIRECT INSUFFLATION OF THE NEWBORN WITH THE STETHOSCOPE.—G. Fieux proposes the ordinary stethoscope as a means of resuscitating stillborn infants. Insufflating tubes, such as that of Ribemont-Dessaigues, are not always at hand, and, even when available, are not easy of introduction, but all medical men and midwives carry a stethoscope. Further, the stethoscope can be easily applied, and has been proved to give satisfactory results. The broad, bell-shaped end of the instrument is placed over the mouth and nose of the infant, fitting closely thereto like a mask. Through the other end, held in the left hand, the accoucheur blows air into the lungs, while he aids expiration by compressing the chest with the right hand after each insufflation. The head of the infant is kept in an extended position. It is difficult to understand wherein this method excels the ordinary methods of establishing respiration in cases of stillbirth, some of which—for example, Schultze's method—require no apparatus at all.—*Rev. Obstét. Internat.*

MR. LAWSON TAIT AND HOSPITAL ABUSE.—The Birmingham Daily Post gives Mr. Lawson Tait's views on hospital reform: "We (the profession) are entirely responsible for hospitals, and for all their faults as well as their merits." He maintains that the medical officers of the Birmingham Hospital could make an end of the trouble in a month. As a temporary expedient, he suggests that they should assign thirty per cent of their income accruing from hospital positions for the assistance of their "struggling extramural brethren." The Lancet, commenting on this, says: "We are sure the 'struggling brethren' would decline any such remedy. All they ask from their hospital colleagues is to use their influence to restrict the benefits of hospital treatment to those who need it and can not afford to pay for it. Neither is it of any use to lay the whole blame on hospital honorary officers. The committees and governors of hospitals are equal or greater culprits."—*Medical News.*

EXTRAORDINARY DEATH OF A PHYSICIAN.—Dr. Carrier, of Varennes, France, has recently died under painful circumstances. The daughter of a patient to whom he had given a hypodermic injection of morphine, seeing her mother very quiet, thought she was dead, and cried out that the doctor had poisoned her. Dr. Carrier was seized with a fainting fit, and, as he fell, struck his head against the mantelpiece, receiving injuries which resulted in his death a few hours later, just as the patient awoke, much relieved by her peaceful sleep.—*Medical News.*

MISSED LABOR: FOUR YEARS' RETENTION OF FETUS.—Resnikoff removed from the uterine cavity the skeleton of a seven-months' fetus four years after its death. At the seventh month of the pregnancy the patient suffered from some febrile malady. Labor did not follow, and the constant purulent discharge troubled her till the fetal remains were removed; a few small bones came away occasionally in the discharge. The uterus was large, but movable. The parametrium and appendages were healthy.—*South Russian Medical Journal.*

A "KNEIPP-CURE" SANITARIUM IN VERMONT.—The American Kneipp-Cure Company, of New Jersey, proposes to open its first Kneipp-cure sanitarium at Middletown Springs, Vt. The company is capitalized at \$1,000,000. Middletown Springs is now a popular summer resort known for pure air and water, and the Kneipp-cure people propose to change the name to Kneippville.—*Medical News.*

THE INTERNATIONAL CONGRESS AT MOSCOW.—It is announced that the Russian railways have generously decided to grant free passes to members of the Congress, thus greatly reducing the expenses of the journey.

A NEW REMEDY FOR GOUT.—An English physician claims that regular daily traveling in railway cars has a hygienic value, and is especially beneficial in cases of gout.

THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

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NO. I.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PRIMARY CARCINOMA OF THE OVARY.*

BY LOUIS FRANK, M. D.

As Sir Spencer Wells has pointed out, from the structure of the ovary itself, with its fibrous stroma, its dense investing membrane, with the numerous and active reproductive vesicles which it contains, and its ever-active intrafollicular epithelium, it should be an especially favorable seat for cancer. Clinically, however, we find that primary cancer in this situation is rather rare. Sutton says it is very rare, referring to true carcinomata primary in character. According to him most of the cases reported have been in children, at which time epithelial alveolar growths, as we know, are uncommon, notwithstanding the fact, as he says, that there are few, if any, undoubted cases so far reported. Paget found one of the most typical and remarkable examples of scirrhus cancer, bilateral, occurring in conjunction with a scirrhus cancer of the breast and stomach. Richeteau reported in 1867 a case of undoubted cancer of both ovaries in a woman aged twenty-four, which came under his observation in the Charity Hospital. Wells has also reported a bilateral carcinoma of the ovary, occurring in a child aged thirteen years and nine months. More recent writers, Senn, for instance, do not question their occurrence, though he says they are found after puberty, and as a primary tumor are comparatively rare. We find other authorities, also of recent date, stating that they undoubt-

*Read before the Louisville Medico-Chirurgical Society, June 11, 1897.

edly do occur primarily, though there seems to be some difference as to the age at which they are found. One states that they may occur at any age, even before puberty, usually affecting both ovaries; another, that they are met with most frequently under thirty years of age, and when of the medullary variety that both ovaries are the seat of the disease in more than half the cases. Not infrequently carcinomatous changes may take place in cystic tumors, and we must therefore make a distinction between a true cystic carcinoma and a cyst which has taken on carcinomatous degeneration. They also occur secondarily, as a result of extension of the disease from contiguous structures, most often the body of the uterus, and from metastases. The so-called papillary cancer, or papillary carcinoma as it has been called, is more common, and, though this variety of cancer is usually the result of secondary changes, Olshausen reports them as occurring primarily, which must be very rare. We may distinguish two different forms of ovarian cancer, viz., the diffuse cancerous infiltration, and, secondly, that variety in which the cancerous tissue grows from the periphery. In the first form the ovary itself is usually converted into a large cancerous mass which retains its form for quite a time, the enlargement of the ovary being uniform, nodular, and at times reaching the size of a child's head. This variety is frequently soft in character, and may be beset with cysts as a result of necrotic changes, the cystic spaces or cavities being filled sometimes with blood, at other times with colloid material, or they may undergo myomatous and colloid changes. Adhesions to neighboring organs occur late on account of the ascites, which comes on very early and is quite marked. The second variety consists of cauliflower masses known as papillomatous cancer. This variety may reach an enormous size; adhesions take place early, notwithstanding the ascites which accompanies the growth, metastases throughout the peritoneal cavity being also an early and frequent occurrence.

It is at times almost impossible to diagnose ovarian cancer, and especially so in the earlier stages. The symptoms resemble at this time too much those of other ovarian diseases. The swelling of the feet should, however, excite suspicion, this being one of the very earliest symptoms of this form of tumor. A symptom occurring later than this, and the one which attracts the patient's attention as a rule, first causing her to consult the physician, is ascites. Ascites in the female, without liver, kidney, or heart disease, can be caused by but three things, either peritoneal tuberculosis, movable solid tumor of the ovary or uterus, and,

third, malignant ovarian disease. Cachexia very soon appears, as malignant growths in this location are as a rule rapid.

With this introduction I desire to report a case which I saw some time ago. The history of the case very briefly is as follows: Patient, woman, forty-nine years of age, who had been seen first by another gentleman about two months before I was called, she complaining then, merely of some pain in the abdomen, which was diagnosticated as due to a floating kidney. She was under treatment for a little while, and, passing out of his hands and into the care of Dr. Weidner, I was called to see her in consultation. An examination revealed the entire pelvis filled with a mass, the uterus being pushed anteriorly and downward against the pubic bone. The organ was small in size. The mass in the pelvis felt nodular and seemed to be firmly fixed. The patient was exceedingly anemic; there was swelling of the feet and ascites, and she had become very much emaciated, having lost in the previous few months forty pounds in weight. She, however, presented no cachexia. The case was deemed of malignant character and diagnosis of ovarian papilloma made. An operation was advised and carried out a few days later at the infirmary. It was found that instead of papilloma of one ovary, as was supposed, there was a tumor upon each side. These tumors were probably about as large upon one side as two fists, upon the other side half again as large. They were in general firm and hard, with some small cysts scattered through them, containing a gelatinous colloid material. There were no adhesions whatsoever, enabling us to remove the tumors with ease. Although there had been no rupture of any of the cysts so far as could be made out, although there were no adhesions, still there were numerous metastases scattered throughout the peritoneal cavity; the mesenteric gland was very extensively involved. This of course had not been discovered before operation, and in fact from the duration of the case we thought there was hardly time for these to have occurred, otherwise operation would not have been advised. As stated, the condition was not accurately diagnosed previous to the operation. Thorough microscopic examination showed the tumors to be true alveolar carcinoma, not papillary in character. The further history of the case is also of interest. The urine had been examined at two different times previous to the operation by Dr. Weidner, who found neither albumin, casts, sugar, or any abnormal condition. The patient did exceedingly well for five days, when she became apathetic, the condition gradually deepen-

ing into one of apparent sleep, from which it was difficult to arouse her. The coma became more and more profound, and she died forty-eight hours after the first unfavorable symptom developed, being one week from the operation. At the time the alarming symptoms first manifested themselves the nurse was requested to secure a specimen of the urine for examination, and although she was catheterized repeatedly no urine was ever found. She died with all the symptoms of uremic poisoning. Chloroform was used as the anesthetic. There never was a symptom of sepsis, temperature and pulse-rate remaining practically normal. I am inclined to think there were renal metastases which caused her death, otherwise I am at loss to explain it.

Now as to the prognosis of these cases in general and as to the justifiability of an operation: If operated upon early enough before metastasis or infection of the peritoneal cavity has occurred, there is no reason why these patients should not have their lives prolonged. And notwithstanding the fact that recurrences are at all times very frequent, I think we should give them the chance. Of course we must be governed by the general rules of abdominal surgery, and surgery in general for that matter, and finding adhesions with infiltration, I think it better not to attempt to remove such growths. There is one danger which must not be overlooked, and that is the danger of disseminating cancer cells throughout the peritoneal cavity. I find that Wells, Tait, and others just as eminent, believe that without metastases demonstrable or marked cachexia operation is advisable. Schroeder and others are just as much opposed to operation. All agree that if there is any question as to a diagnosis exploratory incision should be done.

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LOUISVILLE

DIPHTHERIA.*

BY THOMAS B. WRIGHT, M. D.

In estimating the gravity of every disease there are three things that must be considered: first, the frequency of its appearance; second, the number of persons attacked; third, its mortality. In looking up the history of diphtheria, I find that it occurs very frequently, that a large number of individuals contract it, and that up to within the last two or three years fifty per cent was not an unusual but a frequent mortality. Looking at it in this light, we therefore must regard it as one of the gravest, if not the gravest, of all the infantile maladies. Probably no other disease strikes such terror to the fond mother's heart or gives the conservative physician so much solicitude as this complaint. The physician's anxiety arises almost entirely from the fact of his helplessness in the presence of this foe; that helplessness is best illustrated by the number of remedies which have been proposed as a cure. Specifics without number have been urged upon him by his journals and through his daily papers, and he has heard them as they pass from mouth to mouth among the laity. In the extremity of his need he has tried them anxiously, hopefully, hopelessly. How anxious his longing has been for something reliable can only be estimated by the tears of childless mothers, shed in the depths of a grief that could not be comforted.

Intrepid indeed was Behring when he proclaimed to the world that at last we have in our hands a remedy which will reduce the mortality from diphtheria to one tenth of its former rate. Undoubtedly to him belongs the credit of originating and perfecting the administration of antitoxin of diphtheria, the hypodermic injection of which was but the natural sequence of the discovery by Klebs and Loeffler of the bacillus which bears their name. I see no reason why this treatment is not eminently intelligent, as it is beautiful. If in the physical laboratory of the horse there is generated a principle which resists these poisonous ptomaines to such an extent that their specific action is destroyed, why is it not possible that this same essence loaded with the warriors of protection, each armed cap-a-pie, should be injected into another, as it were upon a different field of action, and defend that citadel against the assailing foes, why should it not strengthen that innate resistance to

*Read before the Southern Kentucky Medical Association, April 14 and 15, 1897, at Hopkinsville.

disease which is possessed by all living creatures; for to do this is the constant aim of all physicians. The administration of every remedy is toward that end, not only in diphtheria but in all diseases; upon the physician's ability to do this depends his success. He can not cure, but he can assist nature in her mysterious ways that are marvels of therapeutic skill. As a tree is known by its fruit, so must we judge the merits of this new candidate for therapeutic honors.

In looking over the report of the American Pediatric Society I find that in response to many letters asking for information upon the result of the use of antitoxin which were sent all over the country, reports were returned from 615 different physicians who had treated 3,628 cases; of these, 244 were excluded on account of the diagnosis not having been confirmed by culture, leaving a balance of 3,384 cases; of this number 450 died, showing a mortality of only 13 per cent. The New York Board of Health showed 942 cases treated, with 169 deaths, a mortality of 17.8. The Chicago Board of Health showed 1,468 cases treated, with 94 deaths, a mortality of 6.4 per cent; grand total of cases treated as reported, 5,794, with 713 deaths, a mortality of only 12.3 per cent. This includes all cases moribund at the time of existence. In a report of the Health Department of New York, published in the Medical News on December 12, 19, and 26, 1896, there were 109 reports from hospital practice, showing 15,560 cases, with 3,009 deaths; mortality per cent, 19. 49 reports from private practice, showing 9,208 cases, with 995 deaths; mortality per cent, 10.1. Total in 158 reports, 24,768 cases, with 4,004 deaths; mortality per cent, 16. Previous mortality per cent ranged from 30 to 40 per cent.

The Marine Hospital in a collective investigation secured records of 131,620 cases, including croup, occurring from 1891 to 1894, treated without antitoxin with 51,820 deaths, or a mortality of 39 per cent. These reports came from 109 cities. In 1895 these same cities report 45,690 cases treated with antitoxin, with 11,640 deaths, or a mortality of 25 per cent. This last report also shows that 2,936 cases had been treated without antitoxin, with 1,010 deaths, or a mortality of 41 per cent. I could furnish you other statistics just as convincing and more voluminous than these, but I am satisfied that these are sufficient and are unanswerable, and, as Virchow remarked on observing the result of this treatment in the Children's Hospital in Berlin, "all theoretical considerations must give away to the brute force of the figures, and I consider it the duty of every physician to use a remedy giving such clinical

results." This statement was made after the violent opposition with which he received the remedy shortly after its introduction.

Jacobi, of New York, who is the peer of any man living in the treatment of children, also bitterly opposed its use, but on becoming convinced of its remarkable therapeutic powers said, "It will be entitled to be claimed as a specific though it have not the power to cure every case, any more than quinine cures every case of malaria, or mercury of syphilis." And, more remarkable still, it is claimed by many, if injected the first day of the disease, no case need die. On this point the success of this agent depends. The earlier the injection is given the more certain the cure. Important structures which have been once damaged by the too long circulation of the toxins can not be restored; yet, as the application of the serum is an entirely harmless procedure, it is advisable to use it even in advanced cases, provided they are not entirely hopeless.

Its method of application is simple, requiring only that the selected point for injection be perfectly clean, and that the syringe be thoroughly sterilized before using. If no better instrument is procurable, an ordinary aspirating syringe or even a hypodermic syringe may be used. The preferable places for the injection are between the shoulder blades, on the outer aspect of either thigh, or on the lateral part of the chest below the axilla. The skin may be made clean by scrubbing with soap and warm water, and then rubbed with a five-per-cent carbolic solution. This acts also as a local anesthetic. The syringe should be washed repeatedly in a five-per-cent carbolic-acid solution; at the same time place the needle in a small cup or dish of the pure acid until ready for use, inject the serum deeply under the skin. As to the quantity of the agent injected when the case is mild and seen early, 500 units is usually sufficient. In those cases of average severity a 1,000 units is advisable. In severe cases, seen late or where complications exist, 1,500 units should be used.

It is claimed by those who oppose this plan of treatment that more damage is done than good accomplished, but in all the literature which I have examined I have found but three cases where death was attributable to its use, and those not proven. Kolisko, Professor of Pathology in the University of Vienna, found, in 75 autopsies on patients who had died with diphtheria after the administration of antitoxin, that the serum had influenced the diphtheritic process most favorably; that the membranes were more easily separated, and were frequently loosened, and

that nephritis was not caused by its use. Even admitting that three deaths did occur from its use, taking into the consideration the good that has been accomplished by it, we are perfectly justifiable in taking the risk. In reply to a letter which was written to an authority on this subject, in which I asked him what phenomena are observed in healthy subjects after the injection of the serum, the following answer was received: "Generally speaking there would be no appreciable effect; some observers, however, may have noticed that after the injection of the serum there was some urticaria, also slight local pains and numbness, and occasionally pains in the joints, while others have noticed a slight rise in temperature and an increase pulse-rate, these sequelæ as a rule are transitory, and need give no alarm even when observed."

The questions which confront the general practitioner are these: What shall I do when called to see a case that is suspicious of this disease? Must I wait for a bacteriological examination before using antitoxin? It is stated by many that a membrane in the throat with no history of trauma means in 95 cases in 100 diphtheria. If such is the case, to wait is hazardous in the extreme. Holt, of New York, claims that the membrane of this disease is the only one ever seen on the uvula. While my experience with antitoxin has been in a measure limited, yet, in those cases wherein I did use it, and saw it used by other physicians, not a single death occurred, nor were any unpleasant sequelæ observed. My confidence in this is so great that if I were deprived of all remedies but one in the treatment of this disease I would select antitoxin. Notwithstanding the benefits which have arisen from its use and the confidence I have in it, if some kind spirit having the welfare of the human race at heart should make me the humble agent through which one disease should be forever blotted out from the multitude of those which afflict childhood, unhesitatingly I would select diphtheria and forever banish it from the ken of man.

BOWLING GREEN, KY.

TYPHOID FEVER; ITS TREATMENT.*

BY J. F. RASCON, M. D.

In all great contests, and especially in military tactics before a general engagement in battle, a number of men are sent in advance as skirmishers to draw the fire and ascertain the strength of the enemy. So I feel it is a similar province of ours who were rash enough to let our names go on the programme to prepare papers for this meeting. And while we know, as skirmishers and like skirmishers some of us at least are to be slaughtered, we would entreat you in your criticism to let "justice be tempered with mercy."

I have always, when called on to take part in our Society meetings, endeavored to select a subject its members were most immediately and directly interested in. In compliance with this rule I have chosen for this occasion the treatment of typhoid fever; for, from the best of my information, it has caused more deaths through this section in the past twelve months than any in the catalogue. And if we go back and take its history from antiquity, we find as a death-dealing agent it has been as potent as any.

It is true that cholera, yellow fever, and like epidemics occasionally sweep over the country like a tornado, mowing their victims down by the thousand, but there are intervals, while typhoid fever took up its march ages ago, and is still marching noiselessly but surely on, year in and year out, and, unlike the others, the cold of winter nor heat of summer stop its progress. It is a little partial to fall, but it continues through all seasons, in all climates, and among all classes. If it shows a preference for any thing, it is youth—as a vast majority of its victims are under thirty years of age, though none are exempt.

While the diagnosis and pathology of this disease are well established, the treatment is open to discussion. As my library is very limited, the oldest authority I have been able to obtain was published in 1727, just one hundred and seventy years ago. In comparing the treatment then and now we find, as paradoxical as it may sound, that a very little has been done and yet a great deal has been accomplished, and those who have done the most are those who have done the least.

Look, then, and see a patient bled and purged and wrapped up in heavy blankets, and forced to swallow great draughts of hot decoctions

* Read before the Southern Kentucky Medical Association, 1897.

of bug-juice, and rubbed with lizard (not wizard) oil. See, now, a patient in a large room, with doors and windows thrown open, with a pitcher of iced lemonade by his side, and we conclude a good deal has been done.

But until recently the least medication was the best. There is hardly a medicine in our whole armamentarium that has not been experimented with at some time.

Twenty-nine years ago when I was, as Governor Bob Taylor would put it, "turned loose on a helpless world," turpentine was the great anchor of hope—and oh, what a dose! So many drops day and night, ever so many hours, until the patient died or the turpentine gave out. Occasionally the turpentine would run short, and the patient would get well. Then came the opium and veratrum treatment—there were milder ways of dying; then the wet pack or sheet; and this reminds me of the latest treatment I have noticed; that is, in addition to the wet sheet, to give at regular intervals in lieu of medicine so much cold water throughout the disease.

But to return. We next had the acid treatment; and then came quinine in antipyretic doses. And I want to say that I think, since the days of bug-juice and lizard oil, this heroic dosing with quinine was the most deplorable.

I shall never forget a case I saw in connection with a young, enthusiastic advocate of this treatment. The patient was a delicate young lady of a highly nervous temperament, with blue eyes and light hair. She had been sick about ten days or two weeks, and during all of this time, day and night, had taken these heroic doses of quinine. Of course she was profoundly cinchonized; so much so she was nearly oblivious to every thing around her; her skin cold and bathed in a clammy perspiration; pulse hardly perceptible; her whole muscular system in a tremor, and oh, so sick! not able to raise her head from the pillow; yet her stomach had grown so rebellious from the imposition which caused effort after effort of the most terrible retching, and when not trying to throw up, moaning like a whipped child, she lay there an object of such commiseration I can never forget.

In the treatment of such diseases as typhoid fever, when we have no known specifics with which to cut short the disease, it is well for us to try to find out what are the ways in which death is brought about, and how best to forestall them. In this disease it is well understood that there are two main ways, perforation of the bowel, giving rise to

acute peritonitis, and muscular and nervous exhaustion from high temperature. Whatever then would best meet those indications would be most rational.

This brings us to the treatment I have adopted for the last several years, and I want to say I claim no originality for it. Prof. Waugh, formerly editor of the Times and Register, reported one hundred cases treated with only two deaths, and the deaths due to complications.

My most estimable friend, Dr. Crenshaw, of Cadiz, and myself began the treatment with the first opportunity.

Since then I have never had a death from this disease, or a case of perforation; and I might add, I have never had any serious complications. The last time I talked with Dr. Crenshaw, he had been a similar experience. In a letter from him on the subject, a few days ago, he said "he was still standing by the treatment, and thought it had a tendency to prevent hemorrhage and perforation."

The treatment was this: Sulpho-carbolate of zinc to heal the ulceration and prevent perforation, and acetanilide or one of the antipyretics to keep down high temperature. The zinc is not only an astringent, deodorizer, and disinfectant, but I think a splendid germicide as well. There is no doubt about our being able to control temperature with our antipyretics.

I have made it a rule, in giving any of the coal-tar family, to give with it a stimulus. This not only precludes the possibility of any depressing effect it might have (though I have never seen any, and I have given it with a lavish hand), but it keeps up the patient's strength, encourages his appetite and makes his stomach tolerate food and medicine better. My observation with the treatment leads me to believe a patient could, if necessary, go through a six-weeks' course of fever under this treatment and come out with more strength and nerve vigor than he could with the old treatment with one week's duration. Patients convalesce more rapidly, and are not subject to the complications as under the old treatment. As all know, high febrile action breaks down muscular tissue, and exhausts nerve vigor; but with our antipyretics we can prevent both, and with the zinc heal ulceration and prevent perforation.

As I claim no originality, you will perhaps pardon me for briefly outlining my ideal treatment of a case of typhoid fever with the present light before us.

I would place the patient in a large, airy, well-ventilated room, with no carpet on the floor. To break the noise, let the nurses wear felt

slippers; and, if possible, I would put him on an air or water mattress. Have the patient sponged all over once a day and his linen changed. So far as bathing is concerned, I direct the nurse to bathe the patient's face and hands as often as he may desire. And there is one thing I wish to call especial attention to, and that is a cold cloth extending over the stomach and bowels. Sometimes patients complain of a sense of heat over the heart. I direct, in such case, keeping a cold cloth over the heart. These cold cloths and bathing, as you know, often keep down the morning temperature without the aid of any antipyretics. My rule is, if the temperature does not exceed 101° , to depend upon the cold compresses and bathing. If it goes over that, I give an antipyretic. Some wait until the temperature reaches 103° , which I think is bad practice, for this amount of fever breaks down tissue rapidly and is very exhausting.

In these protracted cases of sickness, husbanding the strength is of prime importance, and this we can and should do by controlling the temperature.

There is no reason why, with the medicine we possess, a patient should not be kept comparatively comfortable all through the disease. With a good nurse and a proper grading of the dose, the patient should suffer but very little. The nurse should have a thermometer and keep a record of the patient's condition, which will enable the physician to regulate his doses and often forestall complications.

Next to controlling the fever is the avoidance of perforation. As you know, in the outset of the majority of cases of typhoid fever in this malarial country, we are not sure that we have n't a malarial element entering into it; and as a rule we begin our treatment with a dose or a few doses of mercury. As for that matter, I always like to get my patient's secretions in good working order in the outset of nearly all diseases.

But I do not hold with the mercurial treatment of typhoid fever. For I think while you are trying to kill the germ you are encouraging the chances of perforation. So, after I have aroused the secretions in the outset, I let mercury severely alone and depend entirely upon enemas, for I allow my patients nothing but a liquid diet, and there is very little fecal accumulation.

I generally have an enema used about every other day, unless there is a laxity of the bowels, and in that event I quiet the bowels at once. And here again comes in the virtue of the cold compress. I think it

has a tendency to drive the blood from the bowels and prevent perforation ; while, on the other hand, the old plan of hot applications and turpentine stupes encourages the reverse. And while on the subject of cold cloths again, in connection with continued fevers of any kind, I don't think there is any better way of keeping up the vigor of the heart than keeping cold applications over it. I do not believe in extremes or routinism, but I mean where they are indicated by high febrile action and rapid pulse. Let the patient's feelings regulate the thermal condition of the applications. These cold cloths, in connection with antipyretics, will do more than any thing else to keep the tongue moist and prevent sordes and complications. I endeavor to keep the bowels perfectly quiet except when moved by the enema.

Another thing I wish to mention is, that from the beginning I think it best to use the bed-pan, and in every way possible husband the patient's strength. As to diet, I rule my patients down to a strictly liquid diet just as soon as I am satisfied I have to deal with typhoid fever. And I enjoin this for at least two weeks after convalescence is established. I allow my patients sweet milk, or buttermilk, animal soups, watermelons, leaving out the pulp. Watermelon juice, as you know, is a splendid diuretic, and when cold is greatly enjoyed. Lemonade and oranges are nature's antipyretics, and I let my patients have them *ad libitum*, so they do not take the acids at a time too near the taking of the sweet milk. I think patients should guard against taking too much liquid at one time. It is best to take a reasonable quantity at the time, and often, than to take any chance on overrepletion. This is a summary of my line of treatment of uncomplicated typhoid fever. As to complications, since I have adopted this practice I have had none ; but, should any arise, I would meet indications.

In conclusion, while I think if this practice of Professor Waugh was universally adopted, our death record would be reduced to the minimum ; yet, since, as I said in the outset, we have no known specific, our attention should be directed to preventives, and this leads me to say I think every physician should in every case investigate thoroughly and try to ascertain the origin and use every precaution to prevent the spread of the disease to others.

I believe all discharges should be burned ; and, when not, have a strong germicide poured over them and buried. I noticed recently that two English physicians have been experimenting by inoculating with germ culture, and are very sanguine of securing immunity from the disease in this way.

It is now the consensus opinion of advanced observers that the germ is found in drinking-water, and my limited observation corroborates this view. I have never seen a case that could not be traced directly to this source. This being the case, I think it would be well to take steps to protect people from this dreadful scourge.

My idea would be to have added to each State Board of Health a competent bacteriologist to inspect any water suspected, by sending him a sample, and where an epidemic prevails let him visit the locality. Thousands of dollars are annually appropriated to prevent swine pest and Texas fever among cattle, and I think human sanitation equally important. A memorial to Congress looking to this end, it seems to me, would be in order.

JULIAN, KY.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, June 11, 1897, the President, Frank C. Wilson, M. D., in the chair.

Suicide from Drinking Carbolic Acid. Dr. Thomas Hunt Stucky: By the courtesy of Drs. Solomon and Smith I have the pleasure this evening of exhibiting the stomach and the esophagus of a woman who committed suicide by swallowing carbolic acid; it is thought she took about three ounces. When she took it, or how long after swallowing the drug before she was found and brought into the City Hospital, is not known. From what I can learn she died very soon after her admission. The specimen shows the extensive destruction and the leather-like condition of the structures as a result of the carbolic acid, which will be a matter of interest. Another feature of interest, although it has no especial bearing upon the case, is that upon opening the gall-bladder they removed three hundred and fourteen gall-stones, besides a good many fragments which were not counted. The thought occurred to me, however, as to the possibility of the depression produced by these gall-stones being the cause of the suicide. No other cause can be found so far as we are able to determine.

* Stenographically reported for the Practitioner and News by C. C. Mapes, Louisville, Ky.

The esophagus and stomach are very badly burned, the interior being perfectly white; the same condition extended about five feet into the intestine. The leather-like condition struck me as being very peculiar; it feels exactly like leather.

Discussion. Dr. Leon L. Solomon (present by invitation): Very little is known about this woman; the supposition is that she was a prostitute. She was found by one of the East End police, and the ambulance telephoned for. She was brought to the hospital, and the interne, Dr. Smith, tells me she was unconscious when he reached her; her respiration was five or six per minute; pulse hardly perceptible. I inquired particularly about any nervous symptoms, and he said there were none. She was not groaning. Now and then she would sigh; further than that he had nothing to report. She reached the hospital at twenty minutes to six o'clock, and from the best information we can obtain this was about two hours after she had taken the poison, and as Dr. Stucky has said the amount of poison was probably three ounces of carbolic acid. She died at quarter after six.

At the autopsy no changes were found in any of the organs aside from this destructive process in the gastro-intestinal tract. The further away from the poison we could get the redder was the appearance of the gut, the closer to the stomach the whiter its appearance. The walls of the stomach and the esophagus, as you will notice by the specimen, are perfectly white. There were no changes in the kidney whatever, not even the slightest congestion. She was otherwise seemingly in perfect health. Spleen normal; heart normal, no valvular lesion; lungs normal. The stomach was filled with food, among other things containing as many as five or six pickles in rather large pieces. No antidote whatever was given; when she reached the hospital she was practically moribund, and an unsuccessful attempt was made to brace her up by hypodermatic injections of stimulants.

Dr. Turner Anderson: This is a very common method of suicide, and on the other hand patients often take carbolic acid by mistake. I am aware of a number such cases, and it would be interesting to know the experience of those present as regards the minimum quantity that might be taken under these circumstances and still cause death. I recall one case which occurred in the practice of another physician, where a patient swallowed by mistake a tablespoonful of pure carbolic acid, and death ensued ten hours afterward. I have never had an

opportunity before of seeing a specimen where the entire stomach, esophagus, and part of the intestine showed the destructive effects of a poisonous dose of carbolic acid.

Dr. Stucky: I think that the shock in this case was so sudden from the escharotic effect that the chances of complete systemic poisoning from the carbolic acid was very slight. If it had been taken into the circulation we would have seen its effects in the kidneys, and there would also have been evidence of it in the urine. I believe it is a recognized fact that carbolic acid being taken in full doses—sometimes in cases of gastric disturbances, especially the fermentative variety, where it has been long continued—there is a likelihood of its setting up an albuminuria. Tyson in his new work mentions the fact of the probability of its producing nephritis. If only part of the quantity named had been taken in this case, it would have gone into the circulation and there would have been evidence of it in the kidneys. Such was not the case.

Dr. William Bailey: Apparently death was produced by the shock, rather than by absorption of the drug, so far as we can judge, as stated by Dr. Stucky. It is a little remarkable that there was such extensive injury done the stomach notwithstanding the fact that the stomach was filled with food. That is often a protective where corrosive poisons are taken. I take it that the action of carbolic acid would be similar to that of creosote taken in the same doses; it is an irritant in small doses, and becomes an escharotic in large doses, as we know by the application of this remedy externally, and as we can see by its effect upon the stomach evidenced by the specimen before us. I take it there is no shock more profound than that induced by corrosive poisons. All of them are accompanied quickly by collapse when there is as much involvement as in this case, and I think death must have been largely due to shock of the corrosive, involving as it did the esophagus, the entire stomach, passing into the duodenum and into the jejunum as well, extending four or five feet below the stomach, making a surface that was very extensive; and to be destroyed by a corrosive the shock must have been exceedingly great; and from the effect of injuries to the stomach upon the circulation and respiration we know that we may have marked depression. We have failure of the heart with difficulty of respiration oftentimes from reflex causes, perhaps even without absorption. The heart changes made by corrosives I think operate largely in this way, and it would seem if a smaller dose had been taken,

or if the patient had lived a longer time, then there would have been absorption, and there would have been manifestations of the influence of this poison on the kidney, as it would be largely responsible for the elimination, and as it is the organ that suffers in chronic poisoning with this drug. Where such a large quantity is taken there would be very little absorption; it is like the local action of many of the corrosives, they combine with the tissues so quickly and so freely as to interfere with or prevent absolutely any absorption; that is our safeguard in the local application of large quantities of arsenic, for instance, externally for the destruction of neoplasms. It is uncommon to have any untoward effects from the local application of corrosives, because of their rapid combination with the tissues, as I have stated, which prevents absorption, at least I take it this is the explanation of the absence of any manifestation in the kidneys or elsewhere away from the site of local application. I think that death in the case Dr. Stucky has reported must have been due to shock, the quantity of the poison taken being so great and the injury so extensive that the effect was mainly through the circulation and respiration, and that death came from shock rather than from absorption of the poison.

I think a teaspoonful of pure carbolic acid would be a dangerous dose. I believe the local influence, particularly if the stomach is empty, say of a teaspoonful, would be dangerous, it would set up an inflammation that would jeopardize life. It is on this account that creosote and carbolic acid combinations have been made, and made with carbonic acid gas so that we may give a greater quantity. Of either creosote or carbolic acid I do not think a teaspoonful could be safely administered, unless in some condition where the stomach could be protected against the effects of the drug.

Dr. F. C. Wilson: I was called to see the case mentioned by Dr. Anderson immediately after the poison was taken, and recollect the length of time from the time it was taken until death occurred. The accident occurred from the similarity of two bottles, one of which had been given as a lotion, the other containing a cough mixture, and my inference from the history was that a very much smaller quantity of carbolic acid than a tablespoonful was taken. The bottle was marked "A tablespoonful," but it was a lotion to be used for disinfecting a wound about the breast. It might possibly have been pure carbolic acid, which was to be poured into water and the solution used for washing the wound. I estimated at the time that there was a much

less quantity taken than stated, a teaspoonful, or perhaps not more than half a teaspoonful, of actually pure carbolic acid swallowed. I happened to be on duty at the City Hospital at the time, and in making my rounds through the wards (the lady who gave the poison by mistake living just across the street from the hospital) I distinctly heard her scream when she discovered immediately after giving the carbolic acid by mistake to her aunt, thinking it was a cough mixture. The lady's niece, who had been waiting upon the patient during her illness, went hurriedly up to the sick-room from the kitchen, and—these two bottles of the same size and same appearance were kept in the bureau drawer—hurriedly taking out what she supposed was the cough mixture, she poured out a tablespoonful and gave it to the patient to swallow. The lady remarked that the medicine burned so badly that there must be something wrong, and asked if the wrong medicine had not been given her. The niece looked at the bottle, and discovering that it was carbolic acid she ran to the window and screamed to alarm the neighbors. Some one ran to the hospital, and several of us who happened to be there at the time went over immediately and discovered at once what the trouble was; the interne was sent back for a stomach pump; meantime sweet oil, milk, and the white of an egg was given; as soon as the pump arrived the stomach was thoroughly washed out, but it was not more than twenty or thirty minutes before the lady died from the effects of the quantity of carbolic acid taken. She was unconscious by the time we reached the house, which could not have been more than five minutes at the most from the time the poison was administered, and she was dead inside of thirty minutes. I wondered at the time at the very rapid action of the poison.

Dr. Anderson: Personally I do not know just how long the patient lived, nor the exact quantity of carbolic acid taken, but my recollection is that Dr. Cowling stated at the time that she lived ten hours, and that a tablespoonful of pure carbolic acid had been swallowed.

Dr. W. O. Roberts: I was associated with Dr. Cowling at the time, and assisted him in the operation upon the patient referred to by Dr. Anderson, and was with the doctor at the time the woman died. As Dr. Anderson has stated, evidently pure carbolic acid was taken. My understanding was that the woman became unconscious immediately after swallowing it, never spoke a word afterward, and died within a very short time.

Dr. Louis Frank: I saw a patient some time ago who was supposed

to have taken carbolic acid, and had occasion at that time to look up the symptoms, treatment, etc., of carbolic-acid poisoning. It is my impression that the U. S. P. gives one half dram to one dram as the maximum dose.

Dr. Bailey: In this connection I may be allowed to mention a case that I saw a few nights ago where there was a suspicion of poisoning. It was a case in which Dr. Anderson was called, but being indisposed he did not go, and I merely mention the case to show the evils that may follow the substitution of a poison by druggists. A man suffering with some naso-pharyngeal trouble was using, under prescription, an antiseptic tablet, I think the dose for local application being about a tablet in two ounces of water. This man sent to a certain drug store to get some ordinary antiseptic tablets (Seiler's), and the druggist substituted bichloride tablets, labeling the bottle "poison" very properly in the usual way. Notwithstanding this, believing it was the same medicine, the patient put five of the tablets in a pint of water, which made a solution of about one to two hundred, and, pouring out a handful of the solution, snuffed it up his nose as had been his custom, resulting in some quite alarming symptoms for a while.

Dr. Roberts: I remember a case that occurred in the practice of the late Dr. Palmer, in which a lady came to him complaining of a vaginal discharge. Dr. Palmer gave her some medicine which was to be taken internally, a teaspoonful at a dose three times a day, and also gave her some bichloride of mercury tablets with instructions that she dissolve one in a quart of warm water and use as a vaginal douche twice daily. By mistake she took the tablet internally, and used the other medicine in the vagina. She returned the second morning, and told the doctor that she had been unable to take more than one of the tablets, as it had caused such an amount of nausea and vomiting.

Dr. J. M. Ray: While on the subject of poisoning I desire to mention a case that was related to me yesterday, and while I have no personal knowledge of the circumstances, have every reason to believe the statements to be true. A patient of mine from the country came in yesterday and asked my opinion of the poisonous qualities of Paris green. She was the wife of a farmer, and had some Paris green in the house that had been used for the purpose of destroying potato bugs and other insects; during the spring cleaning this was left out of the accustomed place, and two of the children got hold of it and ate the Paris green, and when they were discovered they were covered with

the green stuff; she looked at their mouths and evidences were at once apparent that they had eaten a large portion of it; their tongues were coated with it; she immediately gave them some hot water which caused them to vomit freely, and the vomited matter was green. She said she could actually pick the green from between their teeth with a toothpick, yet the children had no bad symptoms from it.

Dr. J. B. Marvin: I saw an old lady a few days ago in consultation with Dr. Griswold. She had been suffering for some time with an extensive herpes zoster, which had resulted in a very painful condition, as sometimes occurs especially in elderly people. He had been using in this case a simple solution of carbolic acid, which turned the urine very black, and caused almost complete suppression. Only three or four ounces of urine were passed in the twenty-four hours. Yesterday the quantity was gotten up to ten ounces. To-day no urine has been passed since nine o'clock in the morning. Of course the carbolic acid alone is not responsible for the condition in this case, the age of the patient has something to do with it, as has also the fact that she had pre-existing disease of the kidneys.

The essay was read by Louis Frank, M. D.; subject, Primary Carcinoma of the Ovary. [See page 1.]

Morphine Habit Treated with Arsenauero. Dr. Thomas Hunt Stucky: Some weeks ago I had the privilege of reporting several cases of morphine habit treated with arsenauero. Since that time I have had two other cases—one of the gentlemen present, I think, has also seen one of the cases—and have record of another in which the same line of treatment was carried out. While it is impossible to determine whether these patients are entirely cured or not, we are satisfied with this fact, that weeks and months have elapsed without their resorting to the drug, and without the use of other stimulants.

The last case I had was a man, aged twenty-two years, who was taking about sixteen grains of morphine per day. Morphine was discontinued at once, and he was given eight drops of arsenauero (bromide of gold and arsenic) hypodermatically every four hours. The first twelve hours he did very well. At the end of eighteen hours he became so nervous that nitrate of strychnine, $\frac{1}{30}$ grain at a dose, was given him every three hours. This apparently gave him no relief. Four hours afterward I ordered him given $\frac{1}{100}$ grain of hyoscine. If any thing this seemed to aggravate the condi-

tion. He was then given $\frac{1}{2}$ grain of morphine, which seemed to quiet him. This was the only dose of morphine which was given the patient during the time he was under our observation, which has been ever since. The strychnine was withdrawn after a week. He commenced to sleep fairly well, although sleep was more or less disturbed; in the course of ten days or two weeks he seemed to sleep the most of the night. He regained his color to a very great extent, his appetite returned, and he began to show evidences of marked gain in flesh. I saw him in the office to-day. His general appearance is in every way markedly changed; he said he had gone to work and had taken nothing in over two weeks, not even the bromide of gold and arsenic.

I simply report this case as one of seventeen which I have collected and which I intend to put in the shape of a paper, showing that, so far as we are able to learn, we are securing better results from the use of arsenauro than any of the other drugs now at our command.

I have been asked the quantity of arsenauro given. As stated, I began with eight drops to the dose, which was increased, I think, at the end of seven or eight days to eleven drops every four hours. Under this dose he complained of some erotic symptoms and desires—I suppose from the stimulating effects of the gold.

Aborting Puerperal Convulsions. Dr. Frank C. Simpson: I have a case of some interest from the standpoint of aborting puerperal convulsions. I saw a lady recently, who came here from Cincinnati, being seven months pregnant. She had been having, previous to her coming to this city, some albumin in her urine, swelling of the feet, some puffiness under the eyes, and she complained of most of the symptoms incident to such a condition. At first I tried the elimination plan of treatment, which was productive of some good results, but did not prove as satisfactory as I had hoped it would. At the end of eight and a half months she began having labor pains, one after another. The case progressed until the external os was dilated to about the size of a silver dollar. I saw her the next morning and she was practically in the same condition; at noon she complained of blindness; she was passing very little urine; she had considerable swelling about the ankles; puffiness of the eyelids, etc. She had advanced in pregnancy to that period where I thought labor could be brought on with safety to both the child and the mother, and as I found the desired results could not be secured by the elimination plan, by active purging, etc., I

brought on labor, introducing a bougie into the canal, inducing contraction, the child being delivered six hours later.

The case is interesting from the fact that I believe I aborted puerperal convulsions with the dangers attending such a condition. The woman went on and made a good recovery after the labor. The child was rather small but had no trouble.

Discussion. Dr. Ray: In the case reported by Dr. Simpson I assume no ophthalmoscopic examination was made of the eyes. I have seen a number of cases of albuminuric retinitis occurring in the later months of pregnancy. In one case examined I found an active retinitis going on; the woman, however, went on to full term, although she had convulsions at the time. After birth of the child the inflammatory condition in the retina all cleared up; I examined her a number of times after delivery, in fact a year after birth of the child, and all inflammatory conditions about the retina had disappeared, leaving simply a few streaks of opacity on the border of the macula. She became pregnant a second time, and early in the pregnancy, about the fifth or sixth month, she began complaining of her eyes again. I made another examination, and found that the exudation about the retina had returned. She had an extensive exudative condition about the macula arranged in streaks, just as was observed during her previous pregnancy. The case was in the country, and there was the usual history of convulsions, etc., as given by the family physician. She showed such profound uremic symptoms that an abortion was induced at about the sixth month, and the woman recovered the second time also. I had some correspondence with the family physician, and he, I think, advised them of the danger of another pregnancy, and since that time the woman has not again become pregnant. I did not examine her eyes after the second pregnancy, so I can not tell what the condition was at that time; I am told by the family physician, however, that her sight is very defective.

I have seen a number such cases, at least five or six, in which during the later months of pregnancy the typical eye symptoms of Bright's disease have developed. I should simply like to know if in the case reported the condition of blindness complained of was accompanied by retinitic exudation or whether it was simply symptomatic. Loving several years ago advised premature labor in such cases in order to save sight.

Dr. S. G. Dabney: I believe that Dr. Simpson's case was simply a nervous blindness from uremic poisoning. It passed off too quickly for retinitic blindness.

Dr. Anderson: I desire to say that I regard uncontrollable albuminuria in the later months of gestation, especially when associated with great nervous symptoms, one of the most positive indications for the induction of premature labor. When Dr. Simpson found his patient was becoming blind, doubtless suffering from uncontrollable cephalalgia, he had adopted all the ordinary methods in attempting to relieve the threatened uremia, and I think he adopted the eminently proper course in bringing about the labor at the time stated. He tried to relieve the kidney complications which were present in the case; he adopted the eliminative method of treatment, resulting in failure; the case developed grave nervous disturbances which we know are associated frequently and persistently in such cases preceding uremic coma and convulsions; after studying the case carefully in all its aspects he induced premature labor. I really do not see any thing else he could have done. I think the case was properly treated.

Dr. Bailey: I would like to ask whether or not the history of the case does not show that Dr. Simpson had succeeded by the elimination plan to some extent; whether or not without his elimination process this condition would not have resulted in puerperal convulsions. I understand the elimination treatment was carried on up to that time for a period of six months. It is evident from the history of the case that he succeeded in preventing the convulsions by the elimination process. The case was no doubt managed properly when it came to the labor. With dilatation partially accomplished, then ceasing, of course he did right to complete the labor as soon as he could safely do so, but it is a question in my mind whether his treatment prevented the convulsions, that is, the treatment adopted at the time she was delivered. I think bringing on labor, and the labor itself, would have tended to develop puerperal convulsions at that time, unless she had had the benefit of the elimination method of treatment in the weeks before. Without this treatment even the method he adopted of bringing about quick delivery would not have prevented convulsions. I think the elimination treatment was a factor in preventing convulsions.

Dr. Simpson: The only question that came up in my mind at the time was whether or not it was the proper thing to bring on labor. I am very glad to hear what the gentlemen have said on the subject.

I persisted in the elimination plan as long as I thought it was safe; she was freely purged even the day before delivery; the pains were quite frequent during the whole afternoon of the day previous to delivery and up until ten o'clock that night, then ceased. The next day at noon she showed no evidence of advancing labor. The next morning more grave symptoms had developed; she was very nervous, had headache, had slept very little the night before even under the influence of bromide and chloral; she had taken fifteen grains of chloral at a dose, and even with that had slept very little. I believed at this time that convulsions were imminent. I immediately introduced a bougie; took out the bougie at the end of two hours, and the child was delivered four hours afterward. The condition cleared up promptly after the delivery, and she has had no trouble since. I believed she was sufficiently near the completion of the utero-gestation not to jeopardize the life of the child by bringing about premature labor, and subsequent results have proved the correctness of my opinion. The child is living and doing well.

Blindness from Shock. Dr. Roberts: I have had two cases recently of blindness coming on as a result of shock. One was a young woman, eighteen years of age, who fell down a flight of stairs, about ten steps, and was unconscious only for a few minutes. When I saw her, which was I suppose half an hour after the accident occurred, she was very nervous, pulse 100, pupils largely dilated, and she was perfectly blind. This condition lasted for four or five hours. Her sight then gradually returned, and she has had no further trouble.

The other case was one I saw last night at Lagrange, Ky. A child, four years old, was in a spring-wagon, the horse and wagon standing near the curbing, when something startled the horse and he ran away. After going a distance of two squares the wagon struck the edge of the curbing and the child was thrown out into the street, and when picked up she was perfectly unconscious. This unconsciousness lasted for two hours. When the child was finally aroused it vomited freely, the pupils were widely dilated, and the child was perfectly blind. I understand it was fully two hours before the child was able to see at all; when I saw it, however, some six hours after the accident occurred, blindness had disappeared and the pupils were normal.

Sepsis from Acute Indigestion. Dr. C. Skinner: I saw, last Monday, a woman about fifty years of age, who had always been in reasonably

good health, who seemed to be suffering from some form of indigestion. Sunday at noon she had eaten dinner, and during the meal partook heartily of frozen fruit cream. In the evening she complained of headache, but they had some company in the adjoining room, and conversation was carried on late, and the woman went to bed. She got up the next morning in good spirits, talked to the family, and said she would go down and make the fire to get breakfast, which was something she had never done before. She gave an order to the grocery man for groceries for the day, which was also something unusual for her. She said she did not feel exactly right, and believed she would take a dose of salts; after taking the salts she vomited and then became unconscious. I saw her about half an hour afterward, and she was apparently conscious at that time. She talked to me, and wondered why I was there. I directed that the patient be given a little Vichy to relieve the nausea which was present. I saw her again later in the day when she was perfectly rational, but remembered nothing from Sunday at noon; the twenty-four hours were absolutely blank. I saw her this afternoon, and she is still a little light-headed, but it would probably not be noticed if this spell had not come on. She had no recollection of anything that occurred between Sunday noon and Monday afternoon, nor did she remember my first and second visits. The question is, what is the matter with her? My diagnosis was sepsis from acute indigestion.

Dr. J. B. Marvin: I think the case reported by Dr. Skinner is simply one of those cases of motor aphasia without any hemiplegia, a vasomotor condition possibly due to some intestinal trouble.

Dr. H. A. Cottell: Such cases are very puzzling. I do not know that I perfectly understood the report of the case. If the condition had lasted longer, I would be inclined to believe that it was one of those forms of epileptic trouble in which there is a double consciousness; that the woman went along for years attending to the affairs of life, when she suddenly lost her identity and became as it were somebody else. There are instances on record wherein men have conducted business for years in a certain place, became well-known citizens, and suddenly came up missing, went away to a distant town and set up in another business under another name and carried it on for a considerable time, then later returned to the original place, having no recollection of what happened while they were away. The case reported, however, is of too short duration, and the history is too indefinite perhaps to admit of its being accounted for in this way.

JOHN MASON WILLIAMS, M. D., *Secretary.*

Reviews and Bibliography.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volume IX, Diseases of the Digestive Organs. New York: William Wood & Company. 1897.

No volume since the beginning of this great work has surpassed in the eminence of its contributors and the excellence of its matter this, which marks the half-way station of the series. These contributors are Drs. Carl Anton Ewald, Berlin; Kendal Franks, Johannesburg, South Africa; Virgil P. Gibney, of New York; Carlo Gioffredi, Naples; Werner Kümmel, Breslau; Johann Mikulicz, Breslau; John B. Murphy, Chicago; Mariano Semmola, Naples; Alfred Stengel, Philadelphia, and John B. Walker, New York. The articles by Ewald, Gibney, and Semmola are masterpieces each in its line. It comes as a surprise that from Darkest Africa, a medical contribution should be obtained fit to appear in company with the best of Europe or America.

That this series of volumes will grow better to the close there is little reason to doubt, for the reason that the later authors have more time to mature and perfect their articles than had those who contributed to the earlier volumes. The promise of the publishers is being well kept, to pass over into the twentieth century in this encyclopedia with all that is of value up to this date in the practice of medicine. It is greatly to be regretted that financial depression forces so many to deny themselves this treasure who would otherwise delight in its possession.

D. T. S.

Lectures on the Treatment of Fibroid Tumors of the Uterus, Medical, Electrical, and Surgical. By FRANKLIN H. MARTIN, M. D., Professor of Gynecology, Post-Graduate School of Chicago, etc. 174 pp. Price, \$1.00. Chicago: The W. T. Keener Co. 1897.

The author of this well-executed little work has performed his task perhaps not better than many others who have written on the same subject; but there is this to be said for him, that, having gained his experience in different lines of treatment of these troubles, his views are broader than those men who have restricted themselves to a single plan of treatment.

The work lacks one chapter that many physicians could have supplied material for. It is not rare to meet with physicians in large practice who never saw a death from fibroid of the uterus, and any number who could have reported cases that apparently were proper ones for operation and yet got along well from rest alone, enough for a presentable chapter at least. The reviewer has fancied he saw very marked improvement from electricity in cases of hemorrhage and local peritonitis, and yet he has been equally

surprised to see some very ugly cases in poor negroes, who could have practically nothing done, in time get such relief as left their tumors amounting to hardly even an inconvenience.

Ten per cent of lives is a number to sacrifice to operation that one would think would be wearing on the conscience of the operator. Dr. Martin teaches a healthy doctrine, and his book deserves to be read.

D. T. S.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. In Photo-Lithochromes from Models in the Museum of the Saint Louis Hospital, Paris, with Explanatory Woodcuts and Text. By ERNEST BESNIER, A. FOURNIER TENNESON, HALLOPEAN DU CASTEL, Physicians to the Saint Louis Hospital, with the co-operation of HENRI FEULARD, Curator of the Museum, and L. JACQUET, Secretary. Edited and Annotated by J. J. PRINGLE, M. B., F. R. C. P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Volumes VI and VII. London: The Rebman Publishing Co.; Philadelphia: W. B. Saunders. 1896.

Part 6 has for contents, "Lesions in a Habitual Cocaine and Morphine Consumer, Ringworm of the Body, Syphilitic Hyperkeratosis, and Psoriasis Figurata." Part 7 has "Eruption from Bromide of Potassium, Hypertrophic Papular Syphilides, Rupoid and Early Gangrenous Syphilides, and Gangrenous Syphilides."

The Atlas continues to maintain the high standard of the initial numbers, both in its scientific character and its appearance as a work of fine art. Such forms of skin disease as are rare and difficult of diagnosis have been given exceptional attention, and are made so plain by description and illustration that one might think they would now change places and become the easy and familiar. Indeed the work can hardly prove of less value as a direct aid in the study of skin diseases than in giving an increased attractiveness to the study.

D. T. S.

A Hand-book of Medical Climatology, embodying its Principles and Therapeutic Application with Scientific Data of the Chief Health Resorts of the World. By S. EDWIN SALLY, M. D., M. R. C. S., Late President of the American Climatological Association. Illustrated in black and colors. 470 pp. Philadelphia and New York: Lea Brothers & Co. 1897.

From time to time publications have been made relating to the medical climatology of various countries and regions which nearly always painted the district for which they were written in glowing colors, while they disparaged rival claimants to consideration as health resorts. We have here a most notable exception; exhaustive investigation, sound discrimination, and the utmost fairness have given us a volume that seems to meet every want. Even as a matter of general information and for the side lights it throws on physical geography, its reading will prove a pleasant task to the seeker of knowledge. We commend the work heartily and without reserve as filling every reasonable expectation of such an undertaking.

D. T. S.

Principles or Guides for a Better Selection or Classification of Consumptives, Amenable to High Altitude Treatment, and to the Selection of Patients who may be More Successfully Treated in the Environment to which they were Accustomed Previous to their Illness. By EDGAR A. TUSSEY, M. D., Adjunct Professor of Diseases of the Chest in the Philadelphia Polyclinic. 144 pp. Price, \$1.50.

This is a kind of running commentary, partly medical and partly philosophical, in which the points made are good, but the author would seem to many as entirely too long coming to them. The author ought to meet the approval of the thoughtful, when he exposes the unwisdom of those who suffer from "bacilliphobia," that is, people who think all that is to be done in the cure and prevention of consumption consists in war on the bacillus. There will always and everywhere be bacilli enough to inoculate when the vital powers are sufficiently low.

D. T. S.

Clinical Lessons on Nervous Diseases. By S. WEIR MITCHELL, M. D., LL. D., Edin., Member of the National Academy of Sciences, Honorary Fellow of the Royal Medico-Chirurgical Society of London. 305 pp. Philadelphia and New York: Lea Brothers & Co. 1897.

This volume includes the most profitable clinical memoranda of the investigations carried on at Dr. Mitchell's private hospital by the visiting physicians and the junior staff. They embrace Morris Lewis's Seasonal Relations of Chorea, The Summer Prevalence of the Palsies of Childhood, by Sinkler, Ehner's Essay on Tremors, J. K. Mitchell's Remote Consequences of Nerve Lesions, and many papers by the author.

While nothing by S. Weir Mitchell is to be read without profit, this, as the gist of a large range of studies made by one whose work constitutes an epoch in medicine, is especially to be commended.

D. T. S.

The Liver of Dyspeptics and Particularly the Cirrhosis Produced by Auto-Intoxication of Gastro-Intestinal Origin. (Clinical, Anatomic-Pathological, Pathogenic, and Experimental Study.) By DR. EMILÉ BOIX, Interne Laureat des Hopitaux de Paris, etc. Authorized translation from the latest French edition by PAUL RICHARD BROWN, M. D., Major and Surgeon, U. S. Army. 138 pp. New York and London: G. P. Putnam's Sons. 1897.

The main purpose of this work seems to be to point out and prove that cirrhosis of the liver may arise from various conditions characterized by indigestion. It is a work of exceptional learning and very interestingly written. It is a book not merely for those who must have a treatise on every medical subject, and who may be justly puzzled in a selection, but it is a book for those who have books, and which no one can read without gain.

D. T. S.

Hysteria and Certain Allied Conditions; Their Nature and Treatment, with Special Reference to the Application of the Rest Cure, Massage, Electro-therapy, Hypnotism, etc. By GEORGE J. PRESTON, M. D., Professor of Diseases of the Nervous System, College of Physicians and Surgeons, Baltimore, etc. 298 pp. Price, \$2.00. Philadelphia: P. Blakiston, Son & Co. 1897.

The object the author announces for this little volume is to present the symptomatology and diagnosis of hysteria in as concise a manner as pos-

sible, and to indicate the various therapeutic measures that have been found useful in the treatment of the disorder. He aims to show both the applicability of these measures and the method of carrying them out.

The illustrations used are the beautiful drawings of Richer used by Charcot and Gilles de la Tourette. There is little in the work that is not found in such classics as Gowers and others on the subject, but this work is the most recent, deals justly with the facts, and gives us a book in convenient form.

The author is especially earnest in deprecating surgical interference in hysteria, a branch in which we hope he is mistaken when he says "the operating frenzy is not spent." The book will do good. D. T. S.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The British Institute of Public Health; St. John's Ambulance Corps and the Jubilee; Vivisection Experiments; Death of Pastor Kneipp; Hydrochloride of Phenocoll; Chinosol in Ophthalmic Surgery; "Kissing the Book;" St. George's Hospital Graphic Society.

Those interested in the British Institute of Public Health have held a congress under the presidency of the Lord Mayor. Lord Playfair, in an interesting address, reminded his hearers that it was but right that the Lord Mayor should preside, as for many centuries the Lord Mayor was always held responsible for the condition of London and its sanitary state. Queen Elizabeth used to write scolding letters to the Lord Mayor, pointing out the growth of London, and, although the population then was only 160,000, an ordinance was passed forbidding building within three miles of London or Westminster, as the Queen thought the people were pressing upon one another, so that in one sense they were being smothered. With regard to sanitary matters, Lord Playfair said that in the reign of the Tudors the death-rate was eighty per thousand; now the death-rate averages nineteen per thousand in the metropolis; in May last it had sunk to fourteen and nine tenths per thousand. Moses understood sanitary law perfectly. The Romans also were aware of the importance of cleanliness, but between the present time and the time of the Romans there had been a long period of a thousand years, during which cleanliness was looked upon as an indication of wickedness. During the reign of William IV attention was first paid to public health, £2,000 being paid to promote vaccination. It was not until 1838 that

public health became the object of national care. In 1848 the city of London first appointed a medical officer of health. From this date the death-rate had been enormously reduced. It was calculated that there were 1,500,000 persons always sick in England, and from 20,000,000 to 30,000,000 people suffering from causes of sickness. When the Queen ascended the throne, from five hundred to seven hundred out of every million of the population died from typhus fever; from that number it sank to three hundred per million, and at the present time the deaths were one per million. As to typhoid fever, twenty-three years ago the death-rate was three hundred and seventy-four per million, now it was one hundred and thirty-five per million. Consumption claimed in 1837 one fourth of the whole mortality of the country. Every year there died fifty thousand from consumption; at present the death-rate was reduced to one hundred and forty per hundred thousand.

The St. John's Ambulance Brigade expects to be fully employed along the line of route on Jubilee Day. Ninety stations will be established at convenient points. The number who will be on duty will comprise some eight hundred medical men and ambulance officers, with twenty-four ambulance wagons and litters. About three hundred members of Provincial Corps will come to London at their own expense to assist their metropolitan comrades. A good many offers of premises, at different parts of the route, for the treatment of cases have been received. It was during the Jubilee of 1887 that the Brigade was first called upon in numbers to serve the public, at which time it had only been in existence for six years, and mustered a total strength of under four hundred. On the marriage of the Duke of York, one thousand five hundred and forty-four cases were registered as having been treated by this organization.

A return has just been issued showing the number of experiments performed on living animals during the year 1896 under licenses granted under act of Parliament. The return relates to England and Scotland. It appears that two hundred and thirty-six persons held licenses; of these seventy, although licensed, made no experiments. Experiments are only allowed to be made in certain licensed places. Licenses are only given on the recommendation of persons of high scientific standing. The licensees must be, by their training and education, persons fitted to undertake experimental work and profit by it; and, furthermore, all experimental work must be conducted in suitable places. A record has to be kept of the number and nature of the experiments performed, and whether these were done under license alone or under any special certificate. It appears that the only experiments performed without anesthetics were of the nature of inoculations of hypodermic injections. These, says the medical inspector for the Home Office, are now, in order to lessen any chance of misapprehension, placed in a class by themselves. The report says that the large increase of inoculations and allied experiments is likely to continue in view of the discovery of antitoxines.

Pastor Kneipp, of Worishofen, is dead. He was born in Bavaria in 1821, and gave up the trade of a weaver in order to study for the Church. In early life he developed his well-known water-cure. He was fond of ordering his patients to step, wet and dripping, out of a bath directly into their clothes, and thus attired to take to bed. People flocked from all parts of the Continent to take the cure. Advanced years and ill-health compelled Pastor Kneipp of late to withdraw from his former active participation in the cure, but the Kneipp Company, of Mannheim, is likely to keep it alive. Two years ago the Pope sent for the pastor to come to Rome and treat him for ailments that arose from a disordered stomach. The Kneipp Institute is an immense affair, caring for twelve hundred patients. The early morning walk, barefooted, in the dew is the well-known most striking feature in the system.

On the west coast of Africa hydrochloride of phenocoll has been found successful in controlling obstinate cases of malaria when quinine has failed. The dose used is about six grains three times a day, from which no unpleasant symptoms have been observed.

Mr. Percy Dunn, of the West London Hospital, is much impressed with the advantages in ophthalmic surgery of chinosol. He has now used it for several months in hospital and private practice as a substitute for sublimate and carbolic acid, and has not met with a single instance of wound infection. In solutions of 1800, and even stronger, it never attacks the hands, and is a valuable substitute for either sublimate or carbolic acid, while, being almost inodorous, it is preferable to iodoform.

Sir Walter Foster has for some time been pressing upon the government the necessity of so altering the last oaths act that the present proceeding of "kissing the book" shall be done away with, and the method of taking the oath with uplifted hand be substituted. There is a probability of the bill being passed, enacting that in future all judicial oaths shall be administered in the new form, except the witness especially requests to be sworn in any other way.

The St. George's Hospital Graphic Society held a most successful annual meeting on June 18th. The exhibition was composed of contributions from students, past and present, of the hospital. The exhibits were arranged in the board room, the subject-matter being both natural and morbid. There were particularly noticeable some curious rubbings from ancient brasses.

LONDON, June, 1897.

Abstracts and Selections.

INJECTION OF ANTISTREPTOCOCCIC SERUM IN CASES OF OPERATION INVOLVING SUBSEQUENT SEPSIS.—Watson Cheyne (Practitioner, April, 1897, p. 347,) accounts for the great variation in the reported results of the treatment of septic trouble by antistreptococcic serum by the acute character of the diseases set up by the streptococcus pyogenes; irremediable damage is done to the body before the immunizing material has time to produce its effect, or, as in two of his own cases, though the local process is arrested the general temperature is not improved, nor the life of the patient preserved. Experimental evidence is strongly in favor of the prophylactic action of injections of antistreptococcic serum; he thinks their use should not be confined to cases in which infection has already occurred, and that it is in prophylaxis that they will be found most valuable, and especially in operations about the tongue or throat in which septic pneumonia engendered in most if not in all cases by the streptococcus pyogenes is very frequently the cause of death. In a recent case of carcinoma involving the base of the tongue, the anterior pillar of the fauces, the tonsil, and also the large glands in the anterior triangle of the neck, Cheyne, on the two days before operating, injected 20 cm. and 10 cm. of B.I.P.M. antistreptococcic serum; and after a preliminary tracheotomy extirpated the glands, ligatured the external carotid, split the cheek, and removed the diseased parts of the mouth and throat. Ligature of the external carotid greatly facilitates such an operation and diminishes the immediate danger, but is a very fatal proceeding owing to sloughing and secondary hemorrhage. Here there was nothing of the kind. The progress of the case was very remarkable; after the first twenty-four hours there was no elevation of temperature except a rise, evidently an after-effect of the serum, some days later; there was no septic pneumonia, no tendency to septic infection, no inflammation, no sloughing of the surface of the wound; there was an almost entire absence of smell in the breath. Healing was quite uninterrupted. In a case of malignant disease of the left side of the lower jaw inside of the cheek and anterior pillar of the fauces, and extending to the alveolar process of the upper jaw and some small cervical glands, injections of 20 cm. were made on February 15th and 16th, and one of 10 cm. on the 17th a few hours before the operation. The skin healed by first intention, and the wound in the mouth rapidly granulated without any sloughing; there was no elevation of temperature after the first twenty-four hours, and then it did not exceed 100.4°, and the case was most striking from its absolute freedom from septic complication. In a third case, after preliminary extirpation of a large mass of glands from the neck,

90 cm. were injected, during the four days preceding the removal of the tongue. There was the same freedom from septic trouble, and the same absence of smell, and every thing promised well till the patient suddenly expired. An embolus detached from a thrombus in the lingual artery, which had extended into the carotid, had lodged in the brain. Though a certain amount of sloughing was found at the back of the wound, the greater part was quite clean and free, and there is no reason to doubt that but for this unfortunate accident healing would have been uninterrupted. Extensive operations will be far more feasible if the septic pneumonia and the diffuse septic processes so apt to follow them can be prevented by the prophylactic use of antistreptococcic serum.—*British Medical Journal*.

GASTRIC ULCER ASSOCIATED WITH SEPTICEMIA.—Widal and Meslay (*Sem. Méd.*, March 19, 1897,) report the case of a patient who succumbed to staphylococcic pyemia. On opening the stomach *post-mortem* a perforating ulcer with perpendicular edges, having for its base the subperitoneal adipose tissue, was found. The mucous and submucous layers were very edematous and infiltrated. Numerous sections of the ulcer were made but no staphylococci found. It is possible that a small abscess or erosion, due to the staphylococcus, formed first on the surface of the mucous membrane, and the gastric juice then transformed a small lesion into a large ulcer. The mischief was doubtless first microbial and afterward peptic, the microbes disappearing as the lesion extended. At some necropsies after death from septicemia (in one case puerperal) microbial gastric ulcers have been found. They are also found in animals killed by various experimental infections, often in the form of the initial ulceration, rarely as complete ulcers. In some subjects any slight loss of substance of the gastric mucous membrane may result in the formation of a round ulcer. Bacteriological confirmation of the origin of these ulcers is often likely to be wanting, as the microbe which starts the ulceration disappears, leaving behind it the round ulcer, which is simply a result of a trophic disturbance peculiar to the gastric mucous membrane.—*Ibid*.

ALCOHOL IN CHILDHOOD.—J. Comby considers alcohol injurious to healthy children. In disease it is indicated in acute febrile diseases accompanied by adynamia, a tendency to cardiac collapse and to nervous depression. It is contra-indicated in chronic diseases, in diseases of the nervous system, in nephritis and all forms of albuminuria, in chronic dyspepsia, dilatation of the stomach, entero-colitis, acute dysentery, and disorders of the liver; also in acute articular rheumatism, in arthritic diseases, vesicular, pustular, or papular dermatoses, and in acute endo- and peri-carditis. It must not be given in conditions of anemia, languor, and weakness; and this applies to the various alcoholic tonics advertised so generally. To avoid all irritating action alcohol should be prescribed for children in a syrup of some kind or in milk, etc. Even wines should not be given undiluted.—*American Journal of Obstetrics*.

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D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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IS HYDROPHOBIA A MYTH?

From the early days of medicine up till a quarter of a century ago, when bacteriology began to exert an influence in etiological problems, the reality of hydrophobia was disputed or maintained by equally eminent pathologists in about equal numbers.

The controversy continued with unabated interest until Pasteur made his researches, which were thought to settle it positively and beyond doubt. At least the doubters, an inconspicuous minority, were then relegated to the background. Capital was invested in Pasteur institutes in every land, and men of scientific attainment were employed to run them upon the lines laid down by the great French master.

That these institutes have been a success financially is presumable from the fact that they continue to exercise their functions; but that they have thrown any important light upon the etiology and natural history of hydrophobia is not at present manifest. It is moreover remarkable that, notwithstanding the fact that hydrophobia has been thoroughly studied by the most eminent bacteriologists, its specific microbe remains undiscovered.

In view of these considerations and the obscure and variable symptomatology of the disease, it is not surprising that the dissenting minority should again speak, nor can it in reason be denied a respectful hearing.

In a paper read before the Medical Society of the State of Pennsylvania, May 18, 1897 (New York Med. Record, June 26th), Dr. Charles W. Dulles gives voice to the opinions of the antihydrophobists in a

positive and logical manner. The author has been studying the question for about fifteen years, and has made several reports to the Society, which requested him to continue his researches. But the paper under review is based upon a study of forty cases collected during the past two years. Of these he finds a number in which, while death was attributed to a dog-bite and consequent hydrophobia, it was evidently caused by other pathological conditions. Others, who were treated at the New York Pasteur Institute, in the author's opinion have died of "laboratory rabies." The author has investigated "ninety-two cases of persons bitten by dogs supposed to be rabid, with five deaths; and every one of these five patients had been treated at the New York Pasteur Institute." Further, he refers to the deaths of four children, of Baltimore, "out of eight bitten by one dog, and all treated at the New York Pasteur Institute," and says that while the medical profession of Baltimore was "disposed to accept the opinion of those who attributed the deaths to the dog and not to the treatment, from my knowledge of the disease and my acquaintance with the peculiar features that have been introduced into its symptomatology since the practice of so-called 'protective inoculation,' I am strongly of the opinion that the boys died partly of laboratory rabies, partly of dread and mental impressions, and partly from the way in which they were treated."

Narcotics and antispasmodics, such as morphia, atropia, bromide, chloral, and chloroform were employed in the treatment of these cases, and these drugs in the author's opinion are pernicious in so-called hydrophobia, and responsible for not a few of the deaths which occur.

After a study of the reports of thousands of cases in detail and some clinical experience with the disease the author concludes :

1. That hydrophobia can not be considered as a specific disease. The word "hydrophobia" should be used, just as we use the word "convulsions," without prejudice as to the cause of the phenomena.

2. While there can be no doubt that death with a peculiar train of symptoms has often followed the bite of a dog, these symptoms and the usual fatal issue are in no way peculiar to injuries inflicted by animals believed to be rabid.

3. There are very many cases in which the belief in the madness of the dog rests wholly upon the result in the person bitten, and it is not scientific to assume that this belief is more than a belief.

4. Hydrophobic symptoms appear in a great many diseases, and persons bitten by dogs enjoy no immunity from these diseases.

5. There are many cases in which persons have died of hydrophobia while the dogs survived.

6. In some cases symptoms of hydrophobia appeared after various traumatisms; and such a traumatism as a dog-bite may (without assuming the presence of a specific virus) lead to nervous symptoms and death.

7. Deaths from hydrophobia among men who are employed in handling dogs are very rare; though such persons are frequently bitten by the dogs.

[The author's notes furnish but one case, and these notes are from the records of the dog pounds of all the great cities in the world, the London Home for Lost and Stray Dogs, and the keepers of many "kennels."]

8. There is not, in the whole history of hydrophobia, a single credible case in which a person suffering with this disorder has communicated it to another human being or animal.

Notes and Queries.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY held its thirtieth annual meeting at Seelbach's Hotel, May 28, 1897, and elected the following officers for the ensuing year:

Frank C. Wilson, M. D., President; Thos. Hunt Stucky, M. D., Vice-President; John Mason Williams, M. D., Secretary and Treasurer; C. C. Mapes, Official Reporter.

The following gentlemen were present: Drs. Dabney, Anderson, Cecil, Williams, Larrabee, Bullock, Ray, Wilson, Cartledge, Simpson, Bailey, Frank, Ouchterlony, Roberts, Stucky. Guests: Drs. Bodine, Lucas, and McDermott.

A short resumé of the Society's history since its incorporation in 1868 was read by the retiring President, Samuel G. Dabney, M. D.; and after being escorted to the chair the new President, Dr. Wilson, made an appropriate and interesting speech, after which the gentlemen proceeded to partake of an elaborate collation, with Dr. Turner Anderson as host.

Full text of the evening's proceedings will appear in this journal in due course. C. C. M.

THE NATIONAL SOCIETY FOR THE EMPLOYMENT OF EPILEPTICS.—Mr. Bayard, the late American Ambassador, immediately before his return to the United States played the principal part in a pleasant and important

ceremony in connection with the Epileptic Colony at Chalfont St. Peter. This was the laying of the memorial stone of a new building for men which has been given by the generosity of Mr. Passmore Edwards on account of the Queen's commemoration; it is to be named the Victoria House. In the course of an eloquent address Mr. Bayard referred to the fact that the monument which Her Majesty desired to be raised in celebration of her glorious reign was one not of personal aggrandizement or gain, but of charity and the alleviation of human suffering. He considered that one of the most striking characteristics of the English people was the interest taken by all classes in the affairs of others, and that the British system of voluntary benevolence was infinitely superior to State aid for all the ills that flesh and soul were heir to. Sir James Crichton-Browne proposed a vote of thanks to Mr. and Mrs. Bayard and to Mr. Passmore Edwards, whom he happily described as the true master builder. In seconding this, Lieutenant-Colonel E. Montefiore announced that a friend of the Society, who at present desired to remain anonymous, had promised £5,000 for the erection of a house for a resident medical officer. Subsequently Mrs. Bayard opened a new home for epileptic women, called Eleanor House, also the gift of Mr. Edwards. The Society is doing excellent work, and, as will be judged, is rapidly extending its operations; much progress has been made, in spite of many obstacles, since the first eighteen men were housed in an iron building on the farm, and the contemplated appointment of a resident medical officer is much needed. The greatest of the difficulties still remaining appears to be the provision of suitable employment for the colonists. At present their main energies are devoted to market gardening and such-like outdoor occupations; the result is that a spell of wet weather reduces them to a condition of comparative idleness, under which they become irritable, peevish, and troublesome. Although the frequency of their fits is not obviously increased by this, there can be no doubt that such intervals of retrogression exercise a very unfavorable influence, and an influence which will be checked by the extension of the scope of indoor avocations for the colonists.—*British Medical Journal*.

ATROPHY OF THE OPTIC NERVE FOLLOWING EXPOSURE OF THE EYE TO DIRECT SUNLIGHT.—In the lately issued number of the Royal London Ophthalmic Hospital Reports Mr. Treacher Collins publishes a case of considerable interest, in which impaired vision and central scotoma followed somewhat prolonged examination of the sun with the unshaded eye. The patient was a school-mistress, aged forty-nine years, who one day early in May, 1889, about four or five o'clock in the afternoon, on casually glancing at the sun noticed that it was surrounded by a halo of rainbow-colored rings of light. This phenomenon was also observed by others, and was a subject which was afterward discussed in a journal. She continued to look at the sun for from five to ten minutes, only shading the eyes occasionally with the hand. On turning away she saw two yellow disks on the grass before

her, the one on the right being a complete circle, and that on the left being a circle with a notch in it. The yellow disks became blue when she went into a shaded room and looked at a white table-cloth. These disks had entirely disappeared on the third day, but her vision in both eyes was then impaired. By the seventh day "the sight of her left eye had gone." In a few weeks the eye had entirely recovered, but two months after the onset of the affection an object still appeared enveloped in a fog when looked at with the left eye alone, and it appeared to have irregular blanks in it. Only slight improvement in the left eye took place subsequently, and she states definitely that so far as she was aware there was no affection of her eyes before the time at which she looked at the sun. When she came under observation at the Royal Ophthalmic Hospital, Moorfields, five months after she first had trouble with her eyes, her vision in the right eye was six eightieths, while with the left she could only see fingers at a distance of three feet. In the left eye also there was a large central scotoma which could not be mapped out. In the center of this eye white objects could only be seen with difficulty, and red and green were quite invisible. Six years later vision in the right eye with correction was six sixths; with the left, fingers could be counted at three feet, and there was a well-marked scotoma for red. The left disk was found distinctly pale in color, but the vessels did not seem to be diminished in size. The vessels and disk in the right eye appeared normal. The chief points of interest in this case are, Mr. Treacher Collins points out, the great defect in vision which resulted, and the prolonged exposure to the sun which brought about this great impairment of vision. He also points out that so far as he is aware no instance has been recorded in which atrophy of the optic nerve has followed blinding by exposure to sunlight. Reference is made to the recently recorded experiments of Usher and Dean, in which it was shown that retinal wounds were followed by partial atrophy of the optic nerve. These observers found that degeneration always corresponded to the part of the retina that had been wounded, and that in a monkey's eye, when the lesion was made between the optic disk and yellow spot, the degenerated area lay in the outer part of the nerve anteriorly. Mr. Treacher Collins suggests that in his patient the exposure may have caused destruction of some of the retinal elements in the macular region and consequently atrophy of nerve fibers supplying it. Although there was general pallor of the disk the outer part was decidedly the whiter.—*Lancet*.

THE PLAGUE IN BOMBAY.—There is nothing very new to report about the plague, except that the spread of the disease is slowly diminishing, owing to the Government some two months ago having at last made up its mind to enforce the regulations for isolation and segregation which it instituted at the end of last year and then allowed the municipality to disregard. Native medical men are badly wanted, for the native patient will not allow himself to be attended by a European, but the supply of nurses

is ample. Yersin's serum treatment is apparently not successful, the mortality in a series of selected cases—that is cases inoculated within forty-eight hours of attack—being about fifty per cent, the same as the hospital mortality. In one case, although the symptoms due to the plague abated after the inoculation, cardiac failure supervened, and the patient died. It will be remembered that a somewhat similar coincidence has been reported as following the injection of diphtheria antitoxin. If, however, the appalling mortality and the loss of trade which Bombay has experienced lead to a reconstruction of the insanitary tenement houses and impress on the authorities, both municipal and imperial, that disease is not to be trifled with, that if not met and fought with at the very outset it will some day slay its ten thousands, the lesson of the present epidemic, though a bitter one to learn, will not have been altogether useless.—*Ibid.*

FRIEDREICH'S DISEASE.—Langford Symes presents a description of this disease, which he says is not to be found in any book. The affection is one of great peculiarity and obscurity, and inevitably proves fatal. It is a slowly progressing ataxy, chiefly attacking children, and begins in the legs. The disease is a peculiar variety of lateral sclerosis. Its true origin is unknown, but it seems to be hereditary. The chief symptoms are as follows: a staggering gait, walking with a wide base, and aggravated by closing the eyes; loss of knee-jerks; nystagmus or erroneous projection; tremor and jerky unsteadiness of the head, neck, and arms; lateral curvature of the spine; and slow, hesitating, thick, or indistinct speech. Then the clear mind, perfect senses, normal sensation, pes cavus, head bent forward, weakness of certain muscles, and choreiform movements or vertigo, complete the picture. There is, as a rule, no anesthesia, analgesia, optic neuritis, ocular paralysis, Argyll-Robertson pupil, trophic changes, pains or crises, nor affection of the sphincters.—*American Journal of Obstetrics.*

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The next meeting of the Mississippi Valley Medical Association will be held in Louisville on October 5, 6, 7, and 8, 1897. All railroads will offer reduced rates.

The President, Dr. Thos. Hunt Stucky, and the Chairman of the Committee of Arrangements, Dr. H. Horace Grant, promise that the meeting will be the most successful in the history of the Association, and this promise is warranted by the well-known hospitality of Louisville and Kentucky doctors.

Titles of papers should be sent to the Secretary, Dr. H. W. Loeb, 3559 Olive Street, St. Louis, Mo.

DR. JOHN B. HAMILTON, formerly of the Marine Hospital Service under Surgeon-General Wyman, has gone to the Illinois Northern Hospital for the Insane at Elgin, to assume the duties of superintendent. We understand that, while abandoning his extensive surgical practice in Chicago, he will still be retained as editor of the *Journal of the American Medical Association*.

Special Notices.

IT HAS NO RIVAL.—At the meeting of the American Medical Association, held at Washington, D. C., Dr. John H. McIntyre reported "Ten Selected Cases of Laparotomy, with Remarks." From this paper, published in the *Journal of the American Medical Association*, we quote as follows:

"I use but little opium or morphia, for the reason that these drugs, by locking up the secretions, limit the power of elimination, and therefore favor septicemia. For over a year past, in cases of laparotomy where pain and rise of temperature were present, I have used antikamnia in ten-grain doses, with happiest effects."

A further objection to opium and its derivatives is referred to in an article by Dr. Herman D. Marcus, resident physician, Philadelphia Hospital (Blockley), published in *Gaillard's Medical Journal*, from which we quote: "There is probably no group of diseases in which pain is such a prominent and persistent symptom as uterine or ovarian disorders, and in no class of cases have I been more convinced of the value of antikamnia than in the treatment of such affections. An obstacle in the use of morphia is the reluctance with which some patients take this drug, fearing subsequent habit. Antikamnia causes no habit, and I have never found a patient refuse to take it."

PREMATURE LABOR WITH HEMORRHAGE.—I had a most excellent case on which to try Sanmetto. It was that of a woman about forty years of age, who had a premature labor, followed by a terrible hemorrhage. She bled about two hours before I was called, and when getting there I found a pale-looking form of a woman, which had fainted away twice from loss of blood. I gave her two teaspoonfuls of Sanmetto, and the hemorrhage ceased in about five minutes. She rested quietly for about one half hour, when she took to coughing, then the hemorrhage commenced again. I gave her another large dose of Sanmetto, and it stopped again. I stayed with patient about three hours, and no more hemorrhage occurred, and so I went home, leaving no medicine except the part of the bottle of Sanmetto, advising the attendants to give it as directed if hemorrhage should occur again, but it did not occur again, and the woman is improving nicely now, whereas at first I thought it a hopeless case. I do believe that it was the Sanmetto that saved her. I have also used Sanmetto a couple of times previous to this case, in combination with ergot, and the effect was all right then also.

WM. B. STOKER, M. D., Lancaster, Iowa.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—*RUSKIN.*

Original Articles.

THE STUDY OF MORPHOLOGY IN SCHOOLS.

BY JAMES WEIR, JR., M. D.

Since the great epoch-making theory of Darwin has now ceased to be merely a theory, and is accepted as a doctrine which is as clearly demonstrable as is the heliocentric doctrine of Copernicus, an early and universal entrance by the pupils of our schools into the study of morphology seems to me to be demanded.

In our public schools, in which the vast majority of our population gain their education, the scheme of life, with its multitudinous ramifications throughout the animal and vegetable kingdoms, receives but scanty attention. In point of fact, beyond a slight and necessarily imperfect knowledge of the fundamental principles of physiology and anatomy, the public school graduate passes through life in absolute ignorance of his or her status in the scale of animate beings and in the economy of nature. Not only is this true of the public school graduate, but also of the university or college alumnus or alumna, unless he or she has taken special courses of study.

The text-books on physiology, anatomy, and kindred subjects, which are to be found in the curricula of our public schools and colleges, are elementary, and for the most part pseudo-scientific in scope and character; hence (owing chiefly to their condensed form, in which authors mistakenly imagine that brevity is necessarily simplification), they are not adapted to the needs of the student, and generally lead to faulty concepts on his or her part.

Again, in the study of physiology, the authors of these text-books seem to presuppose a knowledge of morphology; for, without some acquaintance with the laws governing life in its various modifications and forms, a true concept of physiological data, I take it, can not be acquired. A knowledge of biology implies not only an understanding and a comprehension of the functions of organs but also a knowledge of the forms in which life is to be observed and the causes and environments, in one word the laws which give rise to or occasion those forms. All through the study of physiology the student meets with morphological references, such as the phenomena of cell life, cell growth, etc. Some of the most important discoveries in physiology are based directly on knowledge derived from morphology; for instance, the phenomena of ovulation, of digestion, and of renal and hepatic elimination.

It is true, as Haeckel has already pointed out, that "the two chief divisions of biological research—morphology and physiology—have long traveled apart, taking different paths. Morphology, the science of forms, aims at a scientific understanding of organic structures, of the internal and external proportions of forms. Physiology, the science of functions, on the other hand, aims at a knowledge of the functions of organs, or, in other words, of the manifestations of life." This division or separation was wholly unnecessary, and in my opinion has already done much harm. When we consider for a moment how very dependent function is on form, and how very frequently the former is modified by the latter, we see at once that the two sciences should go hand in hand, for they are in point of fact interdependent.

Again, physiology, by neglecting the comparative method of study (which method is necessary for an accurate and comprehensive grasp of almost every science), has fallen behind, and now lingers at least a decade in the rear of morphology in point of absolute and certain knowledge. "Indeed, the direction at present taken by physiology is so one-sided that it has even neglected the recognition of the most important functions of evolution, namely, heredity and adaptation, and has left this entirely physiological task to morphologists. We owe to morphologists, and not to physiologists, nearly all that we know of heredity and adaptation."

Physiologists are beginning to recognize the fact that they are behind the times in their methods of study, and are welcoming morphologists as brother scientists without whom their own efforts would

be practically nil. That physiology and morphology are intimately connected, the following instance, one of a countless multitude of like instances, will easily demonstrate. The eye of a human embryo is a simple structure, having its analogue in a fixed and permanent type which is to be found in certain forms very low in the scale of animal life. In the fully developed human eye, however, we see that the organ has entirely changed its form, and that with this change of form it has acquired certain functions; therefore the evolution of the eye necessarily requires not only a study of its change of form (morphology) but also a study of its acquired functions (physiology). From a study which in the beginning was wholly morphological, it has now become physiological also.

Thus it will be seen that, for a comprehensive insight into the functions of any organ, we must first have some knowledge of its structure and the modifications and changes which have already taken place or which will probably take place in it; for in these days such is our morphological lore, in other words, our knowledge of adaptation and heredity, that we can prophesy changes and their results with some degree of success.

But, even if physiology were up to date and stood side by side with morphology in point of knowledge, it would be impossible for a student (no matter how thoroughly he might be versed in physiology), who had no morphological data, to grasp understandingly the doctrine of evolution. Why can not the student who is thoroughly conversant with the "manifestations of life" grasp the meaning of Darwin, who simply enunciated that "the chain of animal life begins in simple organisms and ends in complex"? The answer is easy: he does not know the links in this chain of life, nor can he see how one link is joined to another; he is not acquainted with one of the chief divisions of biology, that is, morphology.

I believe that I can assert, without fear of contradiction, that there is not one man of any eminence in the entire scientific world who does not believe in the doctrine of evolution. Why, then, is it that there are so many men and women who utterly and wholly refuse even to consider this doctrine as sensible, much less true? Again, the answer would be that it is mainly on account of their ignorance of biology. It has been demonstrated time and again, by eminent theologians, both in this country and abroad, that evolution is not antagonistic to the tenets of the Christian faith. The learned, scholarly, and erudite

McCosh died believing in and upholding the doctrine of evolution, while several deans, canons, and bishops, and one archbishop of the Church of England, have been its ardent champions and supporters. Stanley, Farrar, Sanday, Cheyne, Driver, Sayce, and Robertson Smith stand by the side of Huxley as far as Darwinism is concerned. We need not go abroad in search of clergymen who have dared to throw aside tradition and dogmatic theology; who have dared to study facts as they were and are, and to announce their acceptance of this doctrine, and who were brave enough to undergo religious martyrdom for the sake of their beliefs! Winchell, of Tennessee, Woodrow, of South Carolina, and Toy, of Kentucky, were devoted Christians, and yet they were expelled by their churches and branded as heretics simply because they dared to believe in biological evidence—the unerring testimony of morphology!

These men were the victims of ignorance; the very men who condemned them, if they live long enough, will be forced in the end to acknowledge the correctness of the doctrine of evolution, and coincidentally their own error. Many years ago, when Copernicus enunciated his heliocentric theory, his opponents said, "If your doctrines were true, Venus would show phases like the moon."

"Yes," said he, "you are right. I know not what to say, but God is good, and will in time find an answer to this objection."

In 1611 the telescope of Galileo showed the phases of Venus. God had answered!

Winchell was not unmindful of those scientific martyrs, Copernicus and Galileo, when his own time came. Says Andrew D. White, in his "Warfare of Science with Theology," when discussing Winchell's dismissal from the Chair of Geology in Vanderbilt University:

"The professor was told by Bishop McTyeire that 'our people are of the opinion that your views are contrary to the plan of redemption' (as formulated by the Methodist Church, not by Christ, he might have added), and was requested to quietly resign his chair. To this the professor made the fitting reply: 'If the board of trustees have the manliness to dismiss me for cause, and declare the cause, I prefer that they should do it. No power on earth could persuade me to resign.' 'We do not propose,' said the bishop, with quite gratuitous suggestiveness, 'to treat you as the Inquisition treated Galileo!'

"'But what you propose is the same thing,' rejoined Dr. Winchell. 'It is ecclesiastical proscription for an opinion which must be settled by scientific evidence!'"

I will venture to assert that if Bishop McTyeire and his fellow churchmen had been familiar with the history of life as it is written upon the rocky frame-work of the earth, and as it is found in the countless forms of animals and plants scattered throughout the world, if he and they had grasped understandingly the problems of biological research, their treatment of Dr. Winchell would have been entirely different. The laurel wreath, and not *anathema maranatha*, would have been his portion!

If Gladstone had been a morphologist he would not have subjected himself to the overwhelming attacks of that great master of biological science, Thomas H. Huxley.

Our schools are for the education of our children, then why allow them to pass out from these institutions in utter ignorance of the very principles of life itself? Would it not be far better policy to lay before them the scheme of life as demonstrated by biological research than to entirely ignore this most important science, leaving them to grope in the dark when they arrive at years of maturity? I think so, for the people of the United States are demanding the right more and more, as time passes, of investigating the problems of life and of working them out for themselves. We have no moral right to debar the coming generation from that knowledge which is its privilege and its due. Because thousands of men and women of to-day in their scheme of creation prefer the mud Adam of the ignorant, half-savage Assyrians (for Moses unquestionably borrowed from them his "man of clay") to the flesh and blood man of an educated Englishman, is no reason for allowing the coming generation to drift into the same absurd error. There should be no excuse for such ignorance, and yet that this lamentable lack of information concerning the scheme of life does exist there can be no question. And why does it exist? Simply because the most important of all sciences, biology, is not taught in our schools. More than once have I seen college graduates, men of wide reading and with well-trained minds, baffled by the sophistical arguments of some cross-roads wiseacre simply for the lack of a few morphological data!

Biology, especially morphology, should be taught in every school in the land. When men learn to look at life through the eyes of science, throwing aside forever the hampering influences of dogmatic theology and scholasticism, they will soon recognize error and abandon it.

OWENSBORO, KY.

ACETANILIDE.*

BY CHARLES W. AITKIN, M. D.

I determined to write something on this subject, from the fact that this very useful drug is so little used throughout the country, while in its place various proprietary remedies which really have no advantage over acetanilide are used freely. These trade-mark drugs as a rule are largely composed of acetanilide; they are sold to the physician or patient at more than double the cost of the drug under consideration, and I am fully persuaded that as good if not better results are obtained from acetanilide as from any of the proprietary remedies with which I am acquainted. This drug was for several years used under the original name of "antifebrin;" comparatively speaking it is one of the new remedies of the coal-tar group. It is an aniline in which an atom of hydrogen has been replaced by the acetyl. The drug is white, odorless, neutral, permanent, brilliant crystals which will melt at 235° F. It has a slightly burning taste. The prolonged action of hydrochloric acid is required to break it up into its original components. It is readily soluble in chloroform and alcohol, and in the proportion of one to eighteen in ether or boiling water. In water at ordinary temperature it is soluble in about one to two hundred.

In referring to the action of this drug upon body temperature, it is well just here to note that unless there is a hyperpyrexia a medium dose will not exert any influence whatever upon the body heat. We observe, however, within a half-hour after the administration of a dose of from five to ten grains to an adult who has an elevated temperature, that the patient complains of excessive heat and occasionally a slight dyspnea; this in five or ten minutes is followed by a free diaphoresis, the heat-producing element of the system is decreased, the dyspnea is gone, the temperature lowers, and the patient is decidedly more comfortable. The sweating period lasts from one to four hours, the duration depending largely upon the height of the temperature when the acetanilide is administered. If the temperature is quite high, the fall thereof will be much greater after a full dose has been given and the diaphoresis will be more prolonged. Frequently repeated full doses of the drug will produce a cyanosis, which need not alarm us. Cahn and Hepp claim that this cyanosis "depends purely on the coolness

*Read before the Kentucky State Medical Society at Owensboro, Ky., May, 1897.

of the skin, and not on any aniline poisoning." The patient as well as the friend or nurse at the bedside may become alarmed, and various nervous symptoms, from fright, may attend this cyanosis, especially if we have failed to advise the family or patient of this possible condition as well as to assure them that it will cause no trouble. I have seen this blue condition last for two or three weeks, during an attack of typhoid, when the fever kept so high that it was deemed advisable to use acetanilide continuously in full doses frequently repeated, and as yet I have the first case to see where there was any unfavorable result or any reason whatever for alarm. If we have to contend with a high temperature in a continued fever, it is decidedly better to administer the drug at regular intervals, say every four hours, in such doses as may be required to keep the patient comfortable by keeping the temperature at about 100° to 101° F. If large doses are given and repeated often, the temperature will be brought down to normal and possibly subnormal, and this will almost invariably be followed by a reactionary temperature going higher than at any time before the antipyretic was administered; therefore, for every individual case the dose should be regulated so as to avoid too great decline in temperature, thus preventing such marked reaction.

When we have such free diaphoresis and the sweating period is over, my experience teaches me that in order to prevent the uncomfortable chilliness which accompanies the renewal of pyrexia, as in continued fevers, it is better to rub the patient dry, put on fresh clothing and give a medium dose—five grains—of the drug under consideration. This may have to be repeated several times during twenty-four hours, but when the dose is finally so regulated in quantity and in time of administration as to keep the temperature from 100° to 101°, we will not have much active diaphoresis. If administering the drug solely as an antipyretic, I would dispense it in at least two different size doses, say four grains in one and five in the other. I would then instruct the nurse to give the doses at stated intervals—for example, four hours apart, since the effect of a single dose does not last longer—and to be governed by the thermometric registration of temperature as to which of the doses to use: if the temperature was between 100° and 102° F., I would direct the smaller dose; if from 102° to 104.5°, I would have the five-grain dose used; or if it should be 105° or above, I would direct two of the four- or five-grain doses, as might be required to produce the desired effect.

The comfort which this drug gives to patients suffering from pulmonary tuberculosis is sufficient to commend it to every physician until our armamentarium is so reinforced that we can have the human system immune to the attacks of the tubercle bacillus. The temperature may be controlled to such an extent that the sweating will be greatly diminished, or possibly altogether suppressed.

The antipyretic action of the drug is only one of its many valuable properties; it is also used as a sedative, analgesic, anodyne, antispasmodic, antirheumatic, and antiseptic. The pain from numerous nervous disorders is usually readily relieved by a full dose of this drug, and if the trouble causing the pain is functional a brief regular continuance of the remedy will often put an end to this annoying symptom. I have sometimes observed that when acetanilide was given to relieve a headache it has had a hypnotic effect, and the sleep was more refreshing and natural than when produced by other drugs of the soporific group.

Its antispasmodic action is especially noticeable in *post-partum* pains, when it seems to me to act as well as an opiate without the undesirable effects of the latter.

I have never gotten any benefit from its use in chorea or epilepsy, notwithstanding numerous good results from its use in these affections are chronicled by careful observers.

For dysmenorrheal pains patients have reported a very marked degree of relief, and by giving it regularly each month, beginning with the first pains of the approaching catamenia and continuing it if necessary throughout the flow, in five-grain doses every two, three, or four hours as may be required, we will often find after from four to six months of this treatment that the function of menstruation is perfected, there being no further dysmenorrhea. Of course this does not refer to cases that are caused by some organic lesion of the uterus or appendages.

In combating pain we have in acetanilide a most potent remedy, "quieting the sensory portion of the nerves and spinal cord." (Hare.) The contra-indications for its use are not at all well defined, it has been given, even in large doses, in various organic cardiac affections without any deleterious effect.

Children bear it equally as well in proportion as do adults. I have used acetanilide as a local dressing in place of iodoform, and believe as a rule it will give as good results. Lesions heal readily under its use; it is free from odor; there are no toxic or disagreeable phenomena even

if it should be used in large quantities, and last but not least it is cheap enough for general use even when there is often so much waste in dressing.

This drug has a wide range of dosage. Owing to the effect desired, it may vary from five to fifteen grains—the condition to be met will largely direct the dose to be used in any given case. I have given as much as sixty grains per day by the mouth or as much as two drams within the same time by the rectum. To get the quick effect of acetanilide administer it in whisky, brandy, wine or warm water instead of in the usual capsule. I have had patients tell me that compressed tablets of acetanilide had passed through the alimentary canal without any apparent effect toward solution, hence the complaint sometimes heard of getting no effect from this drug. Acetanilide usually agrees with the stomach but in case of any derangement of that organ it had better be administered *per rectum*, and the results will be equally as satisfactory provided from two to three times as much is used *per rectum* as would be given *per os*, and repeated at about the same intervals. It is easily administered *per rectum* in a large capsule; it is advisable, however, to moisten the capsule in warm water just before introducing it, as well as to take all ordinary precautions required prior to administering drugs in this way.

FLEMINGSBURG, KY.

CEREBRAL HYPEREMIA.*

BY A. G. BLINCOE, A. M., M. D.

Cerebral hyperemia is, in my opinion, a disease that has not received the attention from the profession that it deserves. Except in two works on nervous diseases, I have seen very little in medical literature in regard to it. But few of the text-books on practice that I have seen make any mention at all of it, and those that do say very little about it. One recent author says, "As a separate clinical entity it seldom comes under observation;" another, that "the subject is one of great obscurity." I first heard of it as a separate and distinct disease at a clinical lecture about ten years ago. A man from North Carolina, some thirty years of age, who had been a chronic sufferer long enough to consult all the physicians in his immediate vicinity without benefit was

*Read before the Kentucky State Medical Society at Owensboro, Ky., May, 1897.

sent East. He complained of headache, backache, "had the blues," did not sleep well, and did not feel refreshed after sleep. The lecturer, an eminent neurologist, said: "This man is the subject of cerebral hyperemia, commonly called neurasthenia. He has too much blood about the brain. We will put him on twenty grains of bromide of potash and one dram of fluid extract of ergot three times a day. The bromide blanches the brain and the ergot contracts the vessels. In forty-eight hours he will be better, and in two weeks he will be well." Now those of us who have been practicing many years generally become more or less skeptical about such positive statements as this in regard to things that are new to us, but the results of treatment of several cases I have seen since lead me to believe that the statement I made in the beginning of this article is true, and I feel that the lecturer taught me a valuable lesson.

Soon after I returned home after hearing this lecture I saw a married man, about thirty-five years of age, who had been confined to his bed or room most of the time for three years. He suffered sometimes with headache, at others with nausea or palpitation of the heart, insomnia, hypochondria, etc. He had in the mean time been treated, at different times by the three physicians living nearest to him, including myself, without benefit. He was then suffering principally with his stomach, and I undertook to cure him by washing it out with the tube, but there was no appearance of undigested food or any thing abnormal about the contents of the stomach, and after three or four washings without improvement the lavage was discontinued. Some weeks afterward, after having in the mean time read the matter up fully in a late work on nervous diseases, I was called to see him again, and diagnosed his case as one of cerebral hyperemia and put him on the bromides and ergot, and he soon began to mend, and in two or three weeks was apparently well. He has been up and about and able to work ever since, though he came back to me several times at intervals of a few months for more of "that black stomach medicine."

A year or so afterward I saw a young man about twenty who had been sick and confined to his room for a year or so, complaining of some of the symptoms above mentioned. He had been under treatment for pulmonary consumption, but an examination showed no signs of lung disease. He was very despondent, and had lost all hopes of ever getting well. His principal complaint then was his stomach, and lavage was tried without benefit. He was then put on treatment for

cerebral hyperemia and made a rapid recovery, and is now well and hearty.

One of the most remarkable cases I have ever seen was that of a man, seventy-five years old, who was taken to his bed about the middle of December, 1895. He was probably taken with "*la grippe*," and was treated by another physician until about the following March or April, when, as he got no better, he was discharged, and a month or so afterward I was called to see him. He had at that time a mastoid perioritis which I lanced, and the trouble about the ear soon got well. He remained, however, very despondent, slept very little, was constipated, complained of numbness and tingling of the skin of the ulnar side of the forearms and hands, could take but very little food, only a teaspoonful or two at a time, and said his stomach was his main trouble. He lives some four hours' drive from me, and on that account I could not see him as often as I would have liked to, and although I then thought he probably had cerebral hyperemia, I was dubious about the propriety of giving him the remedies for that trouble when he was so far away I could not watch the effects of them; for it should be borne in mind that the symptoms of hyperemia of the brain are said to be sometimes so much like those of cerebral anemia that it is often very difficult to distinguish between them; and, as the treatment of one is directly opposite to that of the other, a mistake in diagnosis might be very disastrous. Four other physicians saw this patient with me at different times either in consultation or by invitation, and it was only the last of these that agreed with me that bromides and ergot were the proper medicines in the case. I had not seen or heard from the patient for two weeks when I received a telegram on August 24th last to visit him. I invited my friend, Dr. Gore, to go with me, and gave him a full history of the case and told him my views as to diagnosis and treatment as we drove over. We met one of his sons this side of his house, who told us that he and the other members of the family thought his father could not possibly live but a few days, that his father did not think any thing could be done for him, but that the family had persuaded him to let them send for me one more time anyhow. After we had examined him Dr. Gore said he "believed I was on the right track," so we put him on about twenty grains of bromide of soda and thirty minims of fluid extract of ergot three times a day. We went back three days afterward, and the improvement had been wonderful. He had scarcely any trouble at all with his stomach, could take a fair

amount of food, slept well all night long, and was cheerful and hopeful. I do not remember ever to have seen so much improvement in so short a time in a case of that duration and apparent gravity. We continued the remedies, and he was able to be up and was in his usual health in two or three weeks. Other cases could be given, but these are deemed sufficient for the purpose of this paper.

I will not attempt to give a complete history of the causes, symptoms, diagnosis, and treatment of this disease, as to do so would make this article entirely too long, but a few brief suggestions that occur to me may not be amiss. Stomach trouble has been one of the most prominent symptoms in most of my cases. As regards differential diagnosis from anemia: the pupils are usually contracted and patients are made worse by stimulants in hyperemia; the pupils are dilated and patients are benefited by stimulants and recumbent position in anemia. The drum of the ear and fundus of the eye are also said to afford aids in diagnosis. Hot foot-baths at night and the drinking of hot water an hour and a half before meals are valuable auxiliaries in treatment. Bromides and ergot should be discontinued after two or three weeks, and such tonics as strychnia and arsenic substituted if indicated.

I would not advise any one without previous knowledge of it to attempt to diagnose and treat a case of this disease from the meager outlines of it here given, for reasons already mentioned; but should this brief paper attract the attention of any who know as little of it as I did a few years ago, and cause them to study the subject carefully in some of the later works on nervous diseases that treat fully of it, it will have accomplished its main purpose.

BARDSTOWN, KY.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Section in Orthopedic Surgery. Meeting of April 16, 1897.

The Non-cutting or Unbloody Operation of Lorenz for the Re-position of Congenital Dislocation of the Hip. This paper, by Dr. G. R. Elliott, was chiefly a description of the different steps of the procedure, viz: (1) The Reduction, or bringing the head to the level of the acetabulum. (2) Re-position or wedging the head into the acetabulum. (3) The formation of a solid acetabulum by manipulation and allowing the child to walk about with the thigh fixed by plaster of Paris at about ninety degrees of abduction. The three steps of the operation were performed under chloroform on a patient, a boy twenty-two months old, by Dr. Elliott before the members of the Section.

Dr. T. H. Myers reported the successful performance on a similar patient, three and a half years old, of Paci's method of manipulation, viz: forced extension, flexion, and then strong traction downward. There were telescoping, lordosis, and all the other signs of dislocation, and one-half inch of shortening. A good deal of force was used in order to cause inflammatory adhesion. The limb was immobilized at thirty degrees of abduction, the spica was changed several times in the following six months, and the girl was then allowed to go about with a walking-brace and a high shoe on the sound side. She walked with a splint walk when the apparatus was removed. The limbs remain at a nearly equal length.

Dr. W. R. Townsend said it would be a great advance if these cases could be cured without a cutting operation. In his experience and observation open methods had proved unsatisfactory. The patients continue to walk lame and dislocation is liable to recur. He thought the superiority of the new methods could not be taken for granted at once. He had treated one patient by the Paci method.

Dr. R. H. Sayre had seen but one patient in whom the hip could be distinctly reduced by Bigelow's manipulation, but he had not been allowed to operate. In this case it was necessary to abduct the limb much more than had been done in the patient treated this evening. He had not achieved brilliant success by operating. In one case, after

the child had been walking for six months, an abscess developed in or near the joint.

Dr. R. Whitman had operated four times by Lorenz's method, and had seen great advantage from the application of twenty-five or thirty pounds of traction for three weeks before the reduction. It facilitates bringing the head down to the level of the acetabulum, which at times requires a great deal of force.

Dr. H. L. Taylor also thought these patients should have extreme forcible traction before the operation, in order to overcome more thoroughly the muscular contraction. Operative treatment had not been so far very encouraging and he believed that this procedure held out a good prospect.

Dr. Whitman said that a point in its favor was that mothers would consent to it when they would not consent to a cutting operation. Moreover it did not confine the patient in a hospital or even in bed.

Dr. Elliott said Paci's and Lorenz's procedures were entirely distinct. Paci aimed to build up a nearthrosis in the vicinity of the joint. Frequently the head did not pass into the acetabulum. His manipulations were, first flexion to the physiological limit, then abduction, then lateral rotation and slow extension, then plaster of Paris for three months, and then careful walking with an apparatus. In this original procedure of Lorenz, however, if entrance of the head was not obtained he deemed the case a failure. It was this re-position plus loading the weight of the body on the bone which made the operation. The acetabulum was there, but rudimentary. The parts immediately began to develop when the bone was replaced. The presence of the bone stimulated the growth which had been absent. The force required in traction was sometimes very great.

Achillo-Bursitis Anterior. In a paper on this subject Dr. S. Lloyd stated that the affection was the result of traumatism from tight shoes, shoes wearing the heel, bicycle riding, jumping, and fractures, or the result of septic, tubercular, gonorrheal, or rheumatic infection. The symptoms were pain under the tendo Achillis on standing and walking and in the plantar region, swelling on the outer side of the tendon, hyperidrosis and extensive inflammation of the surrounding tissues. In the treatment cold and warm baths, the application of tincture of iodine and mercurial inunctions were useless. Traumatic cases required prolonged rest and pressure, and cases having their origin in infection should be treated by incision, curetting, and drainage.

Dr. Whitman presented a case of this affection in a woman of thirty-five years who was on her feet from 6 A. M. till 8 P. M. The symptoms, of one month's duration, had been pain in the heel and in the metatarsal joints and on pressure of the os calcis. There was slight thickening. He said these cases often became chronic and acquired weakness of the arch, or flat-foot. Rest should be enforced. Acute cases required a plaster-of-paris bandage and chronic ones a brace to arrest the function of the joint.

Dr. Sayre had seen cases among athletes, especially hurdle racers, who in making a leap landed on their toes.

Dr. Myers had personally suffered an attack of this kind after a long bicycle ride. He could only walk with ease by everting the foot. In plaster the foot should be placed at right angles to prevent the trouble from becoming chronic.

Dr. V. P. Gibney said that before the pathology was clear these cases used to be called rheumatism of the heel; the region of the tendo Achillis had not been clinically explored. A counterpart is found in the advance in our knowledge which enables us to recognize scurvy in the swelling of joints in children who were called rheumatic.

Section in Orthopedic Surgery. Meeting of May 21, 1897.

Dislocation of the Peroneus Longus and Peroneus Brevis. Dr. W. R. Townsend presented a young man of twenty years of age whose peroneal tendons were easily dislocated to the front of the malleolus. The right foot had been affected in this way for many years, the left only for the past seven months. On walking and on rising from a chair, the tendons would slip over the malleolus and cause considerable disability till they were replaced by the hand. The boy did not have much pain, but he was easily fatigued. Dr. Townsend had hastily reviewed the literature of the subject. Dr. L. A. Sayre reported a case in 1870. In 1876 Dr. Beach, of Boston, reported eighteen cases, including one of his own. Gillet de Grandcourt reported ten cases in 1878. Treves said it was caused by sudden and violent contraction of the muscles when the limb is in such a position as to favor displacement, and that it may be treated by pads and pressure, and that in some cases it was advisable to replace the tendons and retain them by suturing the torn edges of the sheath.

Dr. R. Whitman suggested deepening the channel, replacing the tendons in the groove in the bone and giving them a new covering of periosteum or fibrous tissue. This might be possible without removing the sheath.

Dr. A. B. Judson said that the peronei were comparatively small and unimportant muscles. To a slight degree they assisted the muscles of the calf to extend the foot on the leg. Aside from this their function was to evert the sole of the foot, and this function was not seriously impaired by displacement of the tendons to the front of the malleolus. He thought that the patient would get no benefit from an operation and that practically no treatment was needed.

Dr. Whitman said that the discomfort caused by the slipping of the tendons must be considerable, and that the boy would be better off if this could be stopped.

Dr. Townsend said that the patient had recognized the disability and had come on account of it, and he did not think it was fair to tell him that we could do nothing for him without trying. He thought an attempt should be made to prevent the slipping of the tendons by the application of pads and pressure before an operation was decided on.

A Case of Traumatic Spine with Rectal and Vesical Paralysis. Dr. J. P. Fiske presented a patient, a man thirty-three years of age, who had been under treatment for fourteen months, and under observation thirty-four months, from the time of the injury. When first seen he was in a condition of complete helplessness. He could not move in bed, and if turned or moved by his attendants he suffered the greatest pain. Urine was constantly flowing, and he was not conscious of the passage of feces. Recovery had been complete with control of the sphincters. He was now walking without assistance, and had returned to his work. The accident had been attended with great violence. While working as a harness-maker, the boards gave way under him, as he was carrying a heavy load, and his right leg went through a hole in the floor. The spine was forcibly flexed, and he became unconscious. The twentieth day after the injury rigidity of the spine and muscular spasm were marked. There was complete paralysis from the waist down as regards voluntary motion, incontinence of urine and feces, and pain in the dorso-lumbar region, aggravated by the slightest motion. Crepitus and spinal deformity were absent. The diagnosis was severe traumatism of the spine, concussion of the cord, more or less complete

rupture of the ligaments, and possibly partial dislocation of one of the lumbar vertebræ with spontaneous reduction. He was at once incased in plaster of Paris from the axillæ down to and including the pelvis, with immediate considerable relief. The plaster jacket was renewed when necessary, and was worn day and night for ten months. This treatment, with massage, frequent change of position, alcohol baths, and such medication as was required by his poor general condition and the vesical symptoms, was attended by gradual recovery. There were no bed-sores. At the end of four months he sat up in bed and was lifted into a steamer chair. In seven months he had regained control of his rectum, and could walk a short distance with crutches. From this time his recovery was more rapid. The incontinence of urine persisted longer than the other symptoms, but ceased after a time, and for the past twelve months he had been a perfectly well man. This case showed clearly the immediate and permanent relief which followed absolute fixation after severe spinal injury. Patients treated without persistent fixation were liable to be constantly troubled with pain in the back and legs, and to present the symptoms of railway spine. Dr. Fiske added that these cases were often considered hopeless. He had presented the patient as an example of what continued fixation and supporting treatment would accomplish.

An Ischiatic Crutch Used in Place of an Artificial Limb. Dr. A. B. Judson presented a boy, nine years of age, who was wearing an ischiatic crutch instead of axillary crutches or an artificial limb. Amputation had been performed below the knee after a railroad accident. The case illustrated the comfort and ability which this apparatus was able to secure in the treatment of those affections of the lower extremity which require that the weight of the body be removed from the affected limb. This use of the skeleton of the pelvis was not a new thing. Ischiatic support was a feature of Dr. Fayette Taylor's hip-splint, described in 1867. In fact the long hip-splint was an ischiatic crutch with the added function of traction. In the instrument shown the crutch consisted of an upright steel piece adjustable in length, to meet the growth of the patient, with an india-rubber crutch tip at the foot and a semi-circular pelvic band, carrying a single perineal strap. It also had a shoulder strap which transferred the weight of the splint to the opposite shoulder, a steel knee-piece, restraining the limb antero-posteriorly and a webbing strap above the knee. There was no

customary leather strap surrounding the splint and the ankle because the lower part of the leg was absent. Although the stump was flexed in walking there was no possibility of ankylosis interfering with the subsequent use of an artificial leg because the knee was free from inflammation, which necessarily preceded ankylosis. The apparatus was easily provided with a joint at the level of the knee, and this was desirable in convalescent hip disease, if the limb was so long as to be inconvenient if constantly extended.

Osteotomy for Inversion in Club-Foot. Dr. Townsend, at the request of Dr. V. P. Gibney, presented a girl, five years of age, whose feet had been treated by Phelps' operation, by braces and by building up the outer side of her shoes. On February 16, 1897, to correct inversion, subcutaneous osteotomy of both tibiæ had been performed, and also right achillotomy. The lower fragments of the tibia were rotated outward and the limbs put in plaster of Paris. The inversion had been entirely corrected. Mr. R. L. Swan, of Dublin, who had described this operation, after an experience in the treatment of twenty patients with good results, had said that rotation of the limb as the result of equinovarus, and which persists after the latter is corrected, is due to trouble below the knee; that, when these patients walk and attempt to toe out, they throw the entire limb out by rotation of the thigh, and that the gait is awkward. The toeing in is due to the fact that the entire leg is rotated in, and the external malleolus is too far forward. To overcome this he divides the tibiæ only, rotating and bringing outward the lower fragment, thus placing the internal malleolus further forward as regards its relation with the external malleolus.

Dr. Judson said that for the prevention of inversion he relied on the thorough correction of the equino-varus. If this was done, the child would avoid toeing in, either unconsciously or, later, from pride.

Dr. Whitman said that division of the bones of the leg was a very old operation for the correction of the in-toeing of club-foot.

Dr. Townsend said that Mr. Swan divided only the tibia, and was very careful not to divide the fibula.

Dr. Taylor had noticed that the feet in the case shown had not been fully corrected before the operation. The child walked very well now, and the result was very good, but it seemed uncertain that this condition would prove permanent. He believed that the persistence of inversion in many of these patients was due to incomplete correction of the deformity.

Calcaneo-valgus with Subluxation of the Astragalus. Dr. Taylor presented a baby affected with congenital calcaneo-valgus, with a very unusual degree of dislocation, or subluxation forward of the astragalus. The heel was unduly prominent. The astragalus was displaced forward, while the fibula was behind its normal position. Treatment had been gradual reduction and plaster-of-paris fixation.

Coxa Vara. Dr. Whitman presented a boy, sixteen years of age, affected with bending of the neck of the femur of about twelve months' duration. He walked with a limp and eversion of the foot. The elevation and prominence of the trochanter were increased by flexion. Limitation of abduction, actual shortening of one half an inch with marked apparent shortening from habitual adduction were all present. The treatment would be by removing the weight of the body from the weak femur by the use of a perineal crutch, massage, forcible stretching of the adductors and, if necessary, sub-trochanteric osteotomy. Bending of the neck of the femur was not due to general rickets or the rickets of adolescence, of which there were cases on record. There was, however, a weakness of adolescence which, under favorable conditions, caused this and similar deformities.

OBSTETRICAL SOCIETY OF CINCINNATI.

Meeting of December 10, 1896, the President, Rufus B. Hall, M. D., in the chair.

Report of Cases. Dr. Byron Stanton: At the last meeting we considered the subject of occipito-posterior positions, and in that discussion I expressed the belief that many of these cases could be relieved by internal rotation—that is, by placing the patient under an anesthetic, lifting up the fetus *in utero* and turning it on its long axis. Within forty-eight hours after our last meeting I had an opportunity to do that. I was called by Mrs. Hart, a midwife, to a patient who had had five still-born children, and I recognized an occipito-posterior position. The pelvis was small. The membranes had not been ruptured very long, the uterus was quite relaxed, the waters not all discharged, and I thought it was a favorable case for internal manipulation. I brought the patient down to the edge of the bed, gave her chloroform and then introduced my hand. Getting my hand upon the

chest of the fetus, I lifted it up and rotated it completely, and then applied the axis traction forceps and delivered a living child. The manipulation was done with so much ease that I think very often it may be done in cases of this presentation. I have done it in three cases I can recall, and I have been surprised at the facility with which it can be done. Of course, if the membranes have been ruptured for some time, the procedure would be more hazardous, but where it can be done it is one of the easiest ways of managing cases of this kind. Of course the entire body must be rotated. It would not do to only turn the head around, making a complete revolution of the head; but by getting hold of the shoulders of the child it is an easy matter to make complete rotation.

Another case I want to report is one of induced labor by injection of glycerine, attended with very unpleasant symptoms. I feel more in honor bound to report this case because I reported several cases of induction of labor by this method, attended with the best of results, in which labor was induced quite speedily. I have used it a number of times without any unusual symptoms, but last March I induced labor in a case and had very unpleasant symptoms. When the injection was thrown into the uterus the woman at once complained of extreme pain in the head, and said she was dying, and, when I felt the pulse, I feared she might die. For some time after the pulse-rate was but 30 or 40 per minute. It was some hours before it was any thing near normal. The labor, however, was very promptly induced; the pains came on in three or four hours, and the child was delivered alive. Not very long after the occurrence of this case I met Dr. Landy, who said he had a case in which he attempted to induce labor or abortion (I forget which it was), in which he had the same results as those I have just mentioned. I have since read of a number of cases of very unpleasant symptoms, following sometimes immediately after the injection, and in some cases there occurred a nephritis, which was believed to be the result of the injection of glycerine into the uterus. So I have come to regard this as not a safe method to resort to, and I think I have resorted to it for the last time.

Discussion. Dr. C. D. Palmer: How soon after the injection did these symptoms occur?

Dr. Stanton: Immediately.

Dr. C. A. L. Reed: How much glycerine did you use, Doctor?

Dr. Stanton: About two ounces. The syringe was filled and then a catheter passed over the beak of the syringe and all the air expelled, and then it was introduced, through a speculum, high up in the uterus.

Dr. Palmer: Was there any discharge of blood or separation of placenta?

Dr. Stanton: None at all.

Dr. Palmer: And there was no suspicion that there was any air injected?

Dr. Stanton: None at all. The instrument and the catheter were both full of glycerine. The glycerine was forced up into the catheter until it was completely filled, and then it was kept in that condition until it was used. There was no difficulty whatever in the introduction of the catheter; it was passed along the posterior wall of the uterus and almost the entire length of the cavity, and the injection made high up.

Dr. A. W. Johnstone: Where did she complain of pain?

Dr. Stanton: In the head.

Dr. E. G. Zinke: What was the condition of the os?

Dr. Stanton: Patulous.

Dr. Zinke: And what evidence was there that you did not introduce the catheter between the placenta and the uterine wall?

Dr. Stanton: Only that there was no blood on the catheter when it was removed.

Dr. Zinke: Does not usually the glycerine escape after the withdrawal of the catheter?

Dr. Stanton: No. Where you can get the glycerine five or six inches in the uterus there is no danger of it escaping, if the patient is kept in the recumbent posture.

Dr. Zinke: Whereabout in the head did the patient complain of pain?

Dr. Stanton: Principally the top of the head.

Dr. Reed: How long did these symptoms continue?

Dr. Stanton: I gave her a stimulant right away, some camphor and whisky, and the symptoms gradually subsided. After half an hour I gave her some morphia, because of the continuance of the pains. I did not give morphia before because I did not want any thing to interfere with the labor pains, but on account of the pain continuing so long I gave the patient a quarter of a grain of morphia, and it did not prevent the coming on of labor pains.

Dr. Johnstone: How long did this condition of shock last, Doctor?

Dr. Stanton: Probably after two and a half or three hours it was all gone.

Dr. Reed: How many fatal cases by this method are on record?

Dr. Stanton: I have not seen any reports of fatal cases, but some cases of nephritis have been reported which were supposed to be due to it.

Dr. Johnstone: Do you know whether any of the glycerine had escaped before the symptoms improved?

Dr. Stanton: I don't think any had. At any rate, it certainly had the desired effect of promptly inducing uterine action. I have seen recently a method of inducing labor by applying glycerine to the cervix. I have had no experience with it. From what I have seen lately, however, the method of which I have spoken is not one to be used.

Dr. Edwin Ricketts: Did these pains begin before the full amount of glycerine was deposited?

Dr. Stanton: No, I think not. I used the largest sized catheter I could get, and used the catheter point of the syringe, which you know has a very small opening, through which glycerine can not be readily drawn. For instance, atmospheric pressure is not sufficient to force glycerine up through such a syringe. In this case the instrument was filled with glycerine and then the point screwed on and the catheter applied and the air expelled, and then the piston was pushed down as rapidly as possible. The pain came on just about the time the full quantity of glycerine had passed.

Dr. Reed: Would Dr. Stanton kindly give us his theory of this phenomenon?

Dr. Stanton: I have no theory.

Dr. Johnstone: How about the temperature?

Dr. Stanton: I do not remember now, but there was some depression.

Dr. Palmer: I am glad Dr. Stanton has made a report of this case, for my impressions in reference to the intra-uterine injection of glycerine for the induction of labor, as reported by Dr. Stanton, are precisely the same as they have been. This subject was up for discussion two or three years ago, and I stated then that I had heard and read a good deal about it, but had not much faith in it, and that I was determined to follow the method I had found to be safe and sure. I refer to the use of the solid bougie. Such a case as that reported this evening by

Dr. Stanton is very important for all of us to know of, and I think the doctor will be very careful about using it again. I think we can safely say that the solid bougie, if used carefully and antiseptically, is the safest and best means we have for the induction of premature labor. Possibly one bougie of ordinary size may fail to induce uterine contractions, but the insertion of a second one, somewhat larger, and in another place, between the membranes and the uterine wall, has never failed with me to induce pains and cervical dilatation in a normal physiological way. If a solid bougie, not a catheter, made thoroughly aseptic is employed it is perfectly safe.

Dr. Johnstone: The etiology of the condition is the point which I rise to speak on. This reminds me very much of a discussion that occurred at Dr. Reed's, I think it was, of a condition which may arise from compression of the nerves of the pelvis. I believe, no difference what you would have put in that uterine cavity, the same thing would have occurred, whether the substance had been sweet oil or any other tenacious substance. I have seen the same thing occur from jamming down a fibroid. I remember one day annoying my anesthetizer considerably in this way. I repeated it several times, and I found every time I jammed the tumor down and put the broad ligaments on the stretch the fibroid would act as a cork going into a bottle, and this condition would be brought on. There was the slow pulse, and I suppose if the patient had been from under the anesthetic she would have had the pain also. It is the anhydrous properties of the glycerine that make it have an effect on the muscles to start contractions. The fact that the symptoms came on immediately makes me believe the uterus was already full, and by this increased pressure the nerves were affected. Talking a few nights ago to one of the physiologists of the town, he rather accented a point I knew but had forgotten. One of the reasons so many of our cases, which otherwise may seem so simple, have this terrific shock is because the axis cylinder is really an integral part of the nerve cell itself, and the touch corpuscle that goes to the big toe is really a part of the cell in the brain; and our ligatures really have an effect something like the pugilist in his knock-out blow. I remember a case that Dr. Reed reported, of some sutures, I believe it was, that he applied to the broad ligament, in which he had the same profound shock. And I believe that is really what it was. There was a uterus filled to its utmost capacity, and this additional amount was like a wedge driven into a full space.

Dr. J. Ambrose Johnston: How, then, would you account for water not producing the same effect?

Dr. Johnstone: Well, water is more pliant than glycerine. That is why I asked if the symptoms persisted until the glycerine began to come out. I rather think, if the doctor had thought about it at the time, he would have found that the glycerine slowly oozed out, and that is what gave relief.

Dr. Thad. A. Reamy: I remember very well, when this was first brought before the Society, I believe at a meeting at the Grand Hotel, I predicted that very serious symptoms would arise from it. I do not think it would be impossible in certain cases to inject the uterine sinuses, if the placenta should be partly detached, and the marvelous anhydrating character of the glycerine might add to the mechanical condition referred to by Dr. Johnstone. I rise more particularly to renew my inquiry: Whether there should be any necessity, at any rate after the sixth or seventh month, of using any method except to introduce the fingers and loosen the placenta from the uterine wall? The fingers may be introduced after bringing the patient to the verge of the couch (lithotomy position), and if necessary the patient should be anesthetized to make relaxation more complete. Two fingers instead of one might be introduced. I do not remember more than two cases in a great many years in which I found difficulty of inducing labor by that method, the labor coming on in twelve or twenty-four hours. That is the method I employ in the late months, when I desire to precipitate labor on account of deformity of the pelvis. Of course the method requires considerable skill to avoid rupturing the membranes; still it does not require any more skill than any man can use.

Dr. Reed: It would be interesting to know the difference between the cases Dr. Stanton reported, in which the results were so desirable, and the case reported by him this evening, in which he had these unpleasant features. No doubt the condition that did exist was intrapelvic, and could not be accurately determined. It has always been my impression that there are several sources of danger in this procedure. The one feature that recommends glycerine is its hygroscopic or exosmotic property, and any matter introduced with the glycerine would not be absorbed because the vital fluids form a current outward. That is an element of safety. On the other hand, the procedure has several disadvantages. In the first place, it is a thrust into the dark. Using a flexible catheter, one may wound the placental site,

and then there may not be a discharge of blood so soon as one would think. It is entirely within the range of conception to understand how some glycerine may be taken up into the circulation. But the amount of intrapelvic pressure that is induced can not be estimated entirely by the amount of glycerine used. This volume of fluid is being constantly and very rapidly augmented by the water it is drawing from the tissues. I believe there is, for instance, an exosmotic action from the amniotic and the uterine parenchyma. There is an augmentation, therefore, of intra-uterine pressure that can not be accurately estimated. I feel sure that we must look to the nervous system as the medium through which the phenomenon was manifested. At first one might think some glycerine was thrown into the circulation and the cephalalgia was due to the glycerine passing through the circulation. But on second reflection I am sure that theory is not tenable. Now, in my hysterectomies, since I have ceased using the *en masse* suture and have begun hunting up vessels, I have my patients complain of the very minimum of pain, and having the very minimum of the symptoms usually attributed to shock.

Dr. Reamy: We should not lose sight of the fact that the injection of water into the empty uterus, as an accidental result of vaginal injections, produces very frequently symptoms identical with those that have been reported this evening.

Dr. Palmer: I have seen repeated instances of the evil influence of vaginal injections to prevent impregnation. At the beginning of my practice I often injected the uterine cavity with medicated fluids for intra-uterine medication. I have not done so for the last fifteen years, unless after the necessary preliminary use of cervical dilatation. Now, after dilatation, and after the employment of a reflux intra-uterine tube, no unpleasant symptoms of shock ever show themselves. When symptoms, unpleasant in kind, come on after intra-uterine injections, the pulse is always frequent, and there is intense pelvic pain, but I have never witnessed the pain in the head referred to by the reporter.

Dr. Stanton: Dr. Reed spoke of the possibility of having injected some of this fluid into the veins. I have a great many times introduced catheters or bougies into the uterus of pregnant women, and I think I can tell when I strike the uterine site. The separation of the placenta is very different from the separation of the membranes from the uterus. And I have never introduced an instrument easier than I did in this instance, so that explanation could not hold in this case. There was

nothing in the subsequent history of the case that was at all unpleasant. The labor was difficult, but there was nothing in the after-treatment that was out of the regular course.

Dr. Palmer: Was there any disease of the cervix or corpus uteri to give a patulous condition?

Dr. Stanton: The woman had had an extensive laceration at some previous labor.

A New Dressing. Dr. Reed: I have here a form of dressing, new in my experience, to which my attention was called in Mexico. It is nothing more nor less than asbestos put through a process of refinement. It has several virtues. In the first place it is very soft. In the next place it is capable of complete sterilization. Place some of this dry on a plate, put a few drops of alcohol on it and ignite it and the sterilization is complete. The absorbent properties are better than those of cotton. When dampened it becomes very smooth, absolutely non-irritating, and if then used as a sponge you will not disturb surface lymph deposits or granulations. Inclosed in a little gauze, it makes a perfect sponge, as sensitive as the most refined of sponges. It can be had in various forms. For instance, it is gotten up in the form of a wick. Here is a paper, perforated, used for various dressings. It is thoroughly sterilizable. And here is a wick for intra-uterine packing, which has been reported very satisfactory, but I would hesitate to use it, because it seems to me you could not pull it out without its breaking.

E. S. McKEE, M. D., *Secretary.*

THE ACTION OF THYMUS SECRETION.—Svehla (*Wien. med. Blätt.*) has made a series of experiments on dogs with dried and watery extracts of thymus taken from bullocks, pigs, dogs, and man. The effect on the circulation was particularly studied. The extract was injected into the femoral vein, and the effect on the circulation observed by the kymograph connected with the carotid artery. He concludes as the result of his observations that the injection is followed by a fall of blood pressure due to weakening or paralysis of the vasoconstrictors, and also by an increase in the pulse-rate, due to direct influence on the heart. Where large doses were administered there was excitement, followed by dyspnea and collapse, ending in death; the *post-mortem* appearances were simply those of asphyxia. The practical bearing of these observations is to establish the possibility that some of the cases of so-called "thymic asthma" in children may be due to an excess of thymic secretion in the blood.—*British Medical Journal.*

Abstracts and Selections.

TWO CASES OF SYPHILITIC DISEASE OF THE LIVER.—I believe that some cases of syphilitic disease of the liver are mistaken for ordinary cirrhosis or for certain other obscure diseases of this organ, and that some lives might be saved by appropriate treatment, which otherwise would succumb to the disease. My conclusion in this respect is based upon one or possibly two cases treated for cirrhosis of the liver (or for Bright's disease) by several competent practitioners, the patients having fallen into my hands when death seemed inevitable, and having been rescued by large doses of potassium iodide, and by mercurial injections and inunctions continued over a long period of time. In the case of one of these patients I accidentally discovered a syphilitic history which had been withheld from the former physicians in attendance, and this fact, together with the true picture of cirrhosis which the case presented, rendered completely pardonable the mistaken diagnosis which had been made.

The majority of text-books on practice either omit this subject entirely or dismiss it so briefly that our attention is not sufficiently drawn to it. Loomis, in his "Practical Medicine," devotes two pages to the subject, but under the head of "Gummy Tumor of the Liver," Osler devotes a page and a half to it, and among other things says that "the patient is anemic, and passes large quantities of pale urine containing albumin and tube casts." Flint gives the subject a portion of one page, in which he says "it is usually accompanied by some or all of the ordinary symptoms of cirrhosis, and while not common it is one of the most frequent forms of visceral syphilis." Wood dismisses it with one short paragraph, while Strumpell devotes a page and a half to it, and begins his paragraph on treatment with this clause: "Whether we feel certain of syphilitic hepatitis, or merely suspect it, specific treatment should be tried." The cases which I wish to report are the following:

Case 1. Male, aged forty-five, single; good family history. During the past ten years has been a heavy drinker, taking whisky straight and regularly rather than periodically. He denies all history of venereal trouble other than gonorrhea, but has led a dissipated sexual life for many years. On September 6, 1893, I found him confined to bed. There was considerable edema of the lower extremities, and the abdomen was distended by fluid. The heart was normal, and analysis of the urine showed neither albumin nor casts. Paracentesis abdominalis had been performed three times previous to this date. On the 17th of September I drew off the fluid from the abdomen, when a careful examination showed the presence of a slightly enlarged liver, but further than this I was not able to determine any thing characteristic of cirrhosis.

Thinking I had a typical case of hepatic cirrhosis to deal with, I treated him in accordance with this theory and interdicted the use of alcohol. Finding that he could tolerate large quantities of potassium iodide I prescribed it in dram doses three times daily with small doses of mercurials. During the three months following my first visit I drew off the abdominal fluid six times, removing two gallons each time. During the latter part of this period he wore an elastic abdominal supporter, and the fluid accumulated more slowly. He began to gain strength and flesh and to resume his usual avocation, not forgetting in spite of my protests to return to his old convivial habits. He continued to take the iodide regularly and did well, although drinking heavily. The fluid formation ceased entirely, and he went on to perfect health for many months.

On November 1, 1894, I was summoned at midnight, not having seen him professionally for nearly a year, and found him suffering from a very severe gastric hemorrhage. He was prostrated several days from this, but in ten days was up again, drinking as before. He has gone on to the present time without any further trouble. The fact of his speedy and complete relief, with no tendency toward a return of his former condition, notwithstanding the continued use of alcohol, and the want of evidence to show an established collateral circulation, has led me to believe this a case of specific disease of the liver. Other than the course of the disease, together with the tolerance of large doses of the iodides and of mercury, there is no positive evidence of syphilis.

Case 2. Male, aged forty-four, father of two healthy children, aged four and seven years. When I first saw him, April 7, 1891, he had been confined to his room for three months, most of this time being unable to leave his bed. His sickness, however, had extended over a period of two years, and was ushered in by colicky pains in the hepatic region, and gradual loss of flesh. I found him greatly emaciated, the feet and whole lower extremities edematous, and the abdomen distended by fluid.

There was considerable dyspnea from fluid in the pleural cavities. Examination of the heart and lungs did not reveal any thing abnormal. I could not procure urine for examination, but elicited the fact that some weeks previously he had been catheterized several times without result, and later on had passed large quantities of urine of such a character that a diagnosis of Bright's disease had been made and treatment had been carried out in this direction for several weeks.

Examination of the hepatic region was unsatisfactory on account of the ascites and hydrothorax. He denied any venereal history. He had been tapped twice within the month previous to my first visit. A specimen of urine was obtained on the following day, but on examination did not reveal the presence of albumin, sugar, or casts. On the 9th, two days after first seeing him, I drew off ten quarts of ascitic fluid, when examination of the hepatic region showed what seemed to be a typical hobnailed liver, except that the surface projecting below the ribs seemed more markedly

uneven than in any case I had previously seen. He had been taking a pill which he said contained mercury, and this I had him continue, with the addition of potassium iodide in small and increasing doses. A few days later he informed me that about fifteen years before he had had a sore on his penis, which had healed so rapidly, without any further symptoms, that he did not suppose it could possibly be syphilis or could have any connection in any way with his present illness. Soon after I met the physician who had treated him years previously, and he informed me that the patient had had a true chancre at that time.

During the following five months the abdomen was tapped at intervals of from ten days to two weeks, and during this time mercurial inunctions and hypodermic injections of albuminate of mercury were given alternately, and the iodide was increased to about two hundred grains daily. He soon began to gain in strength and flesh, the time between tapplings was increased, and an elastic abdominal supporter was applied. After the thirty-fifth tapping, which occurred on June 30, 1892, about fifteen months after the first removal of fluid from the abdomen, he gradually resumed work and is well to-day. He has continued to take the iodides intermittently, and is apparently in as good health as ever.—*Dr. George L. Cole, in the Medical News, June 26.*

GASTRO-INTESTINAL HEMORRHAGES IN THE NEWLY-BORN.—M. Hermary states that the symptoms of hematemesis or melena, appearing within the first ten days after birth, can be clinically and therapeutically divided into three groups: (1) False melena, in which the blood is derived from lesions of the breast or from the mother's genital tract, and regurgitated by the infant. (2) True melena occurring in infants suffering from visceral malformations, or injured during labor, or affected with hemophilia or hereditary syphilis. (3) True melena appearing without apparent cause, on the first, second, or third day, in a well-formed child who is apparently in good health. To account for this phenomenon a variety of theories have been advanced; two of these take it for granted that the hemorrhage is primary and derived from a local lesion of the digestive tract. It is supposed to be due to an intoxication, an absorption with the milk of some irritant, or to intense congestion of the intestines from the ingestion of too large an amount of milk. Rindfleisch holds that the veins of the capillary network of the intestines are compressed by the contraction of the muscular tunic, and that premature alimentation, which increases the arterial circulation, also increases intestinal contractions and produces venous stasis. Loranchet believes that chilling after birth induces a turgescence of the circulation. Other authors hold the view that syphilis is the cause of all these hemorrhages. The most generally received theory at the present day is that the grave and even the slight hemorrhages which can not be otherwise explained are due to infection. According to Pinard artificial feeding is a chief cause of this infection. In severe cases the infant should

be rubbed with tepid alcohol, and then enveloped in heated cotton batting and surrounded with hot-water bags. A few drops of laudanum may be given to quiet great restlessness. Every two hours $2\frac{1}{2}$ drams of mother's milk mixed with pounded ice may be given by the spoon or by gavage. From a few drops to $1\frac{1}{4}$ to $2\frac{1}{2}$ drams of alcohol or Hoffmann's anodyne may be added to the milk during twenty-four hours, if the patient is weak. Ergotin (3 to 8 grains) or the extract of rhatany (30 to 60 grains) may be given every quarter of an hour. Inhalations of oxygen must be resorted to in case of collapse. Dry cups and sinapisms may be applied to the chest if the respiration becomes weak or irregular.—*American Journal of Obstetrics.*

DILATATION OF THE LARGE INTESTINE, IDIOPATHIC, SO-CALLED.—In an article upon this subject C. F. Martin writes that the condition has proved fatal in every case reported. In nearly every instance the first symptom was a more or less persistent constipation or other "trouble with the bowels," commencing within the first few days of life. Following upon this comes, either very early or within a few years, a noticeable distension of the abdomen. Pain occurs in most cases, and occasionally there are vomiting and intermittent liquid stools. There is often progressive emaciation, though sometimes death is very sudden, the autopsy revealing no satisfactory reason therefor. The malady is usually fatal at an early age, though some patients enjoy moderate health for years. It is of prime importance to distinguish between purely congenital cases and those which have been acquired at a later date, for dilatation of the colon, as a result of koprostasis, is by no means uncommon. So far as congenital cases are concerned, it is not an infrequent circumstance that antenatal stenosis or an imperforate condition of the anus will lead to dilatation of the colon. Cases of this kind may show equally well a series of symptoms and morbid anatomy resembling those seen in the apparently idiopathic congenital dilatations. There have been numerous theories as to the cause, but none of them is satisfactory. Some of them are as follows: An unduly lax meso-colon, by means of which there arise kinks in the bowel; immoderate or anomalous development of the tissues of the sigmoid flexure or colon; undue length of the sigmoid flexure in early infancy, combined with habitual constipation; defective innervation of the intestinal muscles; spasm of the rectum; adhesions; colitis and hence weakened intestinal wall, and contracted meso-colon at one place.—*Ibid.*

GNORRHEA IN THE FEMALE.—Finger (*Wien. klin. Woch.*) points out the difference the discovery of the gonococcus has made in our knowledge of gonorrhea in the female, and suggests measures based upon this recent work to be applied in prophylaxis. Three doctrines which were formerly held as to gonorrhea in women have now been overthrown: first, that its main seat is in the vagina; secondly, that the urethra is but rarely infected;

and, thirdly, that a man can catch gonorrhea from a healthy woman, or, as Ricord put it, "a man gives himself gonorrhea more often than he receives it." The frequency of gonorrheal vaginitis has now been shown to be minimal; in fact, of 483 cases of gonorrhea examined by Steinschneider the vaginal form was present as a primary affection in seven only. The seats of election are in order: the urethra, which is affected in 75 to 90 per cent, the cervix, which suffers in 40 to 50 per cent, and the Bartholin's glands, which are involved in about 15 per cent. The old view that gonorrhea might be acquired from a woman showing no clinical signs of the disease is quite true; the fallacy is that gonorrhea in the female is often quite unrecognizable clinically. Thus, while clinical inspection during the operation of the Contagious Diseases Act in 1864-83, considerably reduced the amount of syphilis and soft chancre among the prostitutes and soldiers of garrison towns, it left gonorrhea practically untouched. The bacteriological examination of prostitutes was systematically carried out a few years ago at Breslau by Neisser. The results of this were, first, that the percentage of gonorrhea-infected prostitutes in the hospital rose, owing to greater accuracy of diagnosis, from 10 to 54; and, secondly, that the percentage of men affected in the garrison fell from 6.3 to 3.3. Other experiments have shown that a large number of women who are discharged as (clinically) cured, still carry virulent gonococci in their genito-urinary tracts, and so serve to spread infection. The naked eye appearance of the urethral secretion afforded no criterion of immunity, for the diplococci were often present in a perfectly clear and watery fluid. Finger concludes by recommending the bacteriological examination of all prostitutes as an important factor in prophylaxis.—*British Medical Journal*.

HYDROCHLORATE OF HOLOCAINE.—Loewenstamm (*Therap. Monats*) relates some further investigations into the use of holocaine in one-percent watery solutions in ophthalmic practice. It can not be employed subcutaneously because its toxic action is considerably greater than cocaine, and even in ophthalmic work it should be used in minimum doses. By applying a few drops anesthesia is produced in the eye in about ten minutes. The author has employed holocaine in sixteen cases, of which seven were normal eyes, five were examples of foreign bodies, and four were operation cases. In one set of three cases, four drops were put into the eye and repeated in five minutes, when the anesthesia of the cornea and conjunctiva lasted on an average nineteen minutes. In six other cases the same quantity was used on three occasions at intervals of five minutes, and the anesthesia lasted on an average thirty minutes. A slight touch was felt before the lid reflex returned. In three cases four drops were applied on three occasions at intervals of two minutes, and here the anesthesia lasted on the average twenty-six minutes. This method has the advantage of requiring only a short time before the operation can be commenced. Often an increase in the anesthesia of the conjunctiva was noted after the second

and third application, and where this did not occur a passing sensation of burning was experienced. The removal of the foreign body was accomplished in one eye eight minutes and in the other fifteen minutes after the second application, without the patient feeling any thing. In two operations for squint, lasting fifteen to twenty minutes, two applications sufficed. As regards gradual action no difference was noted from cocaine, but the tension of the bulb was not lessened, the cornea retained its luster and moistness, and the pupil was not dilated. No toxic effect was noticed, and no change in the pulse or urine. Heinz allowed a five-per-cent solution, and also the dry powder to be applied to his own eye, and no intoxication symptoms occurred. Perhaps holocaine is less readily absorbed from the conjunctiva than cocaine. Thus holocaine is a prompt, pronounced, and long-lasting anesthetic with no unpleasant results. It should find a permanent place in ophthalmic practice. Boiling the solution is not requisite, as holocaine possesses powerful disinfectant properties.—*Ibid.*

WANDERING OF LIGATURES INTO THE BLADDER AFTER GYNECOLOGICAL OPERATIONS.—Kolischer, of Schauta's Clinic (*Wien. klin. Rundschau*) states that the use of the cystoscope has shown that it is not uncommon for stitches and ligatures to find their way into the female bladder after operations on adjoining parts, particularly the ovaries and adnexa. This may also occur in vaginal fixation of the uterus; ulceration may go on without unpleasant symptoms arising until the bladder wall is eroded. Then there may be a rigor, with more or less lasting fever, followed by pain in the region of the bladder and frequent passing of cloudy urine containing pus and even blood. In slighter cases pain is absent, and there may only be slight discomfort at the end of micturition; the turbidity of the urine is variable. The author records two cases. In the first, violent bladder symptoms came on suddenly after an ovariectomy, and the cystoscope showed an edematous swelling 1 cm. above the left ureter. It was soft and tender, and on carefully opening it with scissors blood and pus escaped. After washing out the bladder a ligature could be seen presenting in the minute wound; this was easily removed with cystoscope forceps. The second patient developed the symptoms of acute cystitis six weeks after removal of the adnexa by the abdomen. There was an edematous prominence in the trigone. A fortnight later this had been replaced by a hole in which lay a ligature. As the process of passage of the ligature through the wall is very slow the author recommends that it be not pulled on by forceps till quite loose; the threads do not incrust very often, but the bladder should be washed out with antiseptic solutions before they are removed. If a ligature appear in the bladder after an operation it must be taken as probable that the remaining ligatures of the same stump will follow, usually through the same channel. They are best got rid of by cystoscope scissors and forceps, and the cystitis they set up is then readily got under. In only one case did a small vesical ulcer persist for some little time.—*Ibid.*

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THE RUSH MONUMENT.

Something less than a quarter of a century has passed since a pilgrimage of representative men, delegated by the American Medical Association, dedicated with appropriate ceremony a beautiful monument to the memory of the great McDowell. And a few weeks since a monument was unveiled in honor of America's greatest surgeon, Samuel D. Gross. These honors have both come somewhat tardily; but in this respect are prompt compared with the slow drag given the committee appointed thirteen years ago to raise funds for the erection of a suitable monument to the memory of that great physician, scholar, and patriot, Benjamin Rush.

The story of this beggarly effort with natural inferences is well told in the following letter from our friend, Dr. Thomas Page Grant, of Louisville.

We trust that Dr. Grant's vigorous and earnest appeal to the patriotism and professional pride of the American doctor will bear fruit in prompt and liberal contributions to the fund.

Editors American Practitioner and News:

History teaches that a people is great only in proportion as they venerate their ancestors. It is said that to this veneration of their forefathers did the old Romans owe their greatness, and with its decline came the decline of the republic. We are told by history that "on the death of one of the family the eldest son delivered a funeral oration, in which he set

forth to the public the dead man's public services. . . . Such speakers kept alive not only the doings of one family but of the whole people."

Can it be that decay has set in, and the life of this grand Republic is on the decline? In reading over the proceedings of the last meeting of the American Medical Association I am filled with a sense of humiliation at the report of my friend, Commodore Gihon, U. S. Navy, chairman of the Rush Monument Committee. This committee was appointed at the meeting of the Association in 1884 for the purpose of collecting funds to erect a suitable monument to Benjamin Rush.

Dr. Rush was one of the great men of the world. Not only as a physician, but as a scholar, statesman, and patriot, was Dr. Rush great; and in all the varied relations of life he was pre-eminently useful—a model worthy of study and imitation. Had he done nothing but practice and teach his profession he would have been entitled to a place on the roll of Fame. When he signed the Declaration of Independence he with his own hand inscribed his name among his peers, the great heroes and benefactors of earth. A lecturer of extraordinary ability, he left on his hearers an impress of his own great mind that has been handed down to this day; as a man of letters he ranked among the first of his country and age. His services as Surgeon-General and also as a member of Congress during the trying hours when the country was struggling for liberty, not to mention his having signed the Declaration of Independence, have placed the country under a debt of gratitude that can never be paid. He stands out on the pages of history a conspicuous figure as patriot, statesman, scholar, and physician, and yet the committee report that after thirteen years they have been able to raise only the beggarly sum of \$4,006.19, and part of that is interest on old collections. Shame on us! Well has the saying passed into a proverb, "Republics are ungrateful."

Can it be that in a country with over sixty thousand regular practitioners there can be only four thousand dollars raised among them in thirteen years to erect a monument to one of its most distinguished sons! while a few thousand homeopaths, with but little effort, have raised *seventy-five thousand dollars* with which they have erected a monument to a man whose only claim to this distinction is that he evolved a fanciful hypothesis of the action of medicines.

So far as Benjamin Rush is concerned he needs no monument at our hands; he built one for himself more lasting than any we can construct when he signed that immortal instrument, the Declaration of Independence, when by his own industry he became the foremost physician of his day, when he organized the Medical Corps of the Continental Line. But we as physicians and Americans owe it to ourselves to show to the world that we hold in honor the memory of one of our profession who did so much to bring honor to his craft; for this reason we should not rest until this tribute is erected. Let us now go to work in earnest, so that the monument to Benjamin Rush may be finished and unveiled at the dawning of the incoming century.

At the recent meeting of the American Medical Association there was a call of the States, and each State was asked to name the amount that it would give to the fund. Dr. J. M. Mathews, President-elect of the Kentucky State Medical Society, made the statement on behalf of his State that "Kentucky is not usually behind." That is true; but let us not be content with that, let us see to it that Kentucky is in her accustomed place, in the lead.

As an American who loves his country, as a medical man who comes of a long line of medical men, some of whom were associated with Dr. Rush in the Medical Department of the Revolutionary army, from whom I have inherited a love of the profession, I urge that we all join in an effort to raise this fund; surely there are none so poor that they can not give a little, and none so indifferent that they will not contribute to so worthy a cause.

Some can, and will give liberally, some less fortunate can give but a little, but every member of the profession can give something, that all may have a part in this noble enterprise. Give, and give quickly! Subscriptions can be sent to Commodore A. L. Gihon, M. D., U. S. Navy, No. 8 West 127th Street, New York City.

THOMAS PAGE GRANT, M. D.

Notes and Queries.

TWELFTH INTERNATIONAL CONGRESS OF MEDICINE, to be held under the High Protection of His Majesty, Nicholas II, and the August Patronage of His Imperial Highness, Grand Duke Serge Alexandrovitch, at Moscow, August 19-26, 1897. The Committee of Organization of the Congress has received from the Minister of Transportation nearly 7,000 free first-class tickets, which it holds at the disposal of the members of the Congress for their journey to and from Moscow.

These tickets have been offered to the Committee of Organization by the minister under the following conditions:

1. The Committee of Organization, in sending each ticket to the member of the Congress for whom it is intended, will write upon it his family name, the place from which he will take his departure, and, if the member is a foreigner, the first station on the Russian frontier—also, the route he will follow to reach Moscow and to return.

2. Aside from this, the Committee of Organization will furnish members of the Congress with a certificate indicating that the bearer has paid his assessment, and is really a member of the Congress. These certificates shall, on demand of the conductor of a train, be presented to him by the bearers thereof.

3. No ticket will be good for the return trip from Moscow unless it has

been furnished by the Committee of Organization with a stamp indicating that "the bearer has attended the International Congress."

4. The names of the members of the Congress may be written, according to the decision of the Committee of Organization, not only in Russian but also in a foreign language.

5. The tickets to Moscow should be presented at the ticket office of the place of departure, or at the first station on the Russian frontier, in order that the stamp of the train may be affixed. On the return trip these tickets are to be presented at the Moscow railway station, where the stamp of the day of departure (old style) will be affixed.

6. The tickets will be good from the 1st to the 13th of September of the present year.

7. Every bearer of a ticket will be allowed to carry free sixteen kilograms of baggage.

8. As soon as the Committee of Organization shall have given notice of the time of arrival at the frontier station of the members of the Congress and their number, the Board of Directors of Railways will make arrangements to permit them to reach Moscow as comfortably and speedily as possible. The same arrangements will be made on their departure from that city.

In accordance with these conditions, in order to have a free ticket, each member of the Congress should inform the Secretary-General of the route which he will follow to and from Moscow.

The Executive Committee has the honor to add that ladies and other persons not having scientific titles, who accompany members of the Congress (Section 3, Rules of the Congress), can not be designated as being in attendance. They pay no admission fee, and do not receive free tickets on the lines of the Russian railways.

STUDY OF THE AMERICAN MEDICINAL FLORA.—The Sub-Commission of the Pan-American Medical Congress appointed to study the medicinal plants of the United States has entered into an association with the Smithsonian Institution for that purpose. The attention of our readers is called to the respective circulars issued by these organizations, which we print below:

Dear Sir: The Smithsonian Institution has undertaken to bring together all possible material bearing on the medicinal uses of plants in the United States. Arrangements have been made with a body representing the Pan-American Medical Congress, the Sub-Commission on Medicinal Flora of the United States, to elaborate a report on this subject, and the material when received will be turned over to them for investigation.

The accompanying detailed instructions relative to specimens and notes have been prepared by the Sub-Commission.

All packages and correspondence should be addressed to the Smithsonian Institution, Washington, D. C., and marked on the outside *Medicinal*

Plants for the U. S. National Museum. Franks which will carry specimens, when of suitable size, together with descriptions and notes, free of postage through the mails, will be forwarded upon application. Should an object be too large for transmission by mail the sender is requested, before shipping it, to notify the Institution, in order that a proper authorization for its shipment may be made out.

S. P. LANGLEY, *Secretary.*

SMITHSONIAN INSTITUTION, Washington, D. C., May 28, 1897.

Instructions Relative to Medicinal Plants. The Pan-American Medical Congress, at its meeting held in the city of Mexico in November, 1896, took steps to institute a systematic study of the American medicinal flora, through the medium of a General Commission and of special Sub-Commissions, the latter to be organized in the several countries. The Sub-Commission for the United States has been formed, and consists of Dr. Valery Havard, U. S. A., Chairman; Mr. Frederick V. Coville, Botanist of the U. S. Department of Agriculture; Dr. C. F. Millspaugh, Curator of the Botanical Department of the Field Columbian Museum, Chicago; Dr. Charles Mohr, State Botanist of Alabama; Dr. W. P. Wilson, Director of the Philadelphia Commercial Museums; and Prof. H. H. Rusby, of the New York College of Pharmacy. This Sub-Commission solicits information concerning the medicinal plants of the United States from every one in a position to accord it. The principal points of study are as follows:

(1) Local names. (2) Local uses, together with historical facts. (3) Geographical distribution and degree of abundance in the wild state. (4) Is the plant collected for market, and, if so, (a) At what season of the year? (b) To how great an extent? (c) How prepared for market? (d) What is the effect of such collection upon the wild supply? (e) What price does it bring? (f) Is the industry profitable? (5) Is the plant, or has it ever been, cultivated? and, if so, give all information on the subject, particularly as to whether such supplies are of superior quality, and whether the industry has proved profitable. (6) If not cultivated, present facts concerning the life history of the plant which might aid in determining methods of cultivation. (7) Is the drug subjected to substitution or adulteration? and, if so, give information as to the plants used for this purpose.

While it is not expected that many persons will be able to contribute information on all these points concerning any plant, it is hoped that a large number of persons will be willing to communicate such partial knowledge as they possess.

It is not the important or standard drugs alone concerning which information is sought. The Sub-Commission desires to compile a complete list of the plants which have been used medicinally, however trivial such use may be. It also desires to collect all obtainable information, historical, scientific, and economic, concerning our native and naturalized plants of this class, and to that end invites the co-operation of all persons interested. Poisonous plants of all kinds come within the scope of our inquiry,

whether producing dangerous symptoms in man, or simply skin inflammation, or, as "loco-weeds," deleterious to horses, cattle, and sheep. In this respect the general reputation of a plant is not so much desired as the particulars of cases of poisoning actually seen, or heard from reliable observers. It is believed that much interesting knowledge can be obtained from Indians, Mexicans, and half-breeds, and that consequently Indian agencies and reservations are particularly favorable fields for our investigation. Such knowledge will be most acceptable when based upon known facts or experiments.

In order to assist in the study of the habits, properties, and uses of medicinal plants, the Sub-Commission undertakes to furnish the name of any plant-specimen received, together with any desired information available.

Owing to the diversity in the common names of many plants it will be necessary for reports, when not furnished by botanists or others qualified to state the botanical names with certainty, to accompany the same with some specimen of the plant sufficient for its identification. While the Sub-Commission will endeavor to determine the plant from any portion of it which may be sent, it should be appreciated that the labor of identification is very greatly decreased, and its usefulness increased, by the possession of complete material, that is, leaf, flower, and fruit, and in the case of small plants, the underground portion also. It is best to dry such specimens thoroughly in a flat condition under pressure before mailing. While any convenient means for accomplishing this result may be employed, the following procedure is recommended. Select a flowering or fruiting branch, as the case may be, which when pressed shall not exceed sixteen inches in length by ten inches in width. If the plant be an herb two or three feet high, it may be doubled to bring it within these measurements. If it possess root leaves, some of these should be included. Lay the specimen flat in a fold of newspaper and place this in a pile of newspapers, carpet felting, or some other form of paper which readily absorbs moisture, and place the pile in a dry place under a pressure of about twenty to thirty pounds, sufficient to keep the leaves from wrinkling as they dry. If a number of specimens are pressed at the same time, each is to be separated from the others by three or four folded newspapers or an equivalent in other kinds of paper. In twelve to twenty-four hours these papers will be found saturated with the absorbed moisture and the fold containing the specimen should be transferred to dry ones. This change should be repeated for from two to five days, according to the state of the weather, the place where the drying is done, the fleshiness of the specimens, etc. The best way to secure the required pressure is by means of a pair of strong straps, though weights will do. The best place for drying is beside a hot kitchen range. When dry the specimens should be mailed between cardboards or some other light but stiff materials which will not bend in transit.

It is a most important matter that the name and address of the sender

should be attached to the package and that the specimens, if more than one, should be numbered, the sender retaining also specimens bearing the same number, to facilitate any correspondence which may follow. The Sub-Commission requests that, so far as practicable, all plants sent be represented by at least four specimens.

H. H. RUSBY, M. D.,

Chairman of the General Commission, New York College of Pharmacy.

Editors American Practitioner and News:

There was quite a large meeting of physicians at Elizabethtown on July 1st, the object of which was the formation of a new Medical Society, embracing the counties of Hardin, Larue, Hart, Grayson, Bullitt, and the lower end of Jefferson. The Committee on Constitution and By-laws reported favorably a copy of those governing the Hardin County Society, which are in accordance with those of the State Society. Dr. Jerome Smith, of Hodgenville, was elected President; Dr. Sam W. Foss, of Jefferson, Vice-President, and Dr. Z. C. Aud, of Hardin, Secretary and Treasurer.

The name of the Society was not permanently agreed upon. "Muldraugh Hill" seemed to be a favorite name with many. I suggested the name of Rush, as it is familiar to every doctor. The title will be determined on at the next meeting, which will be the first Thursday in December. The meetings will be semi-annual.

T. B. GREENLEY, M. D.

MEADOW LAWN, KY., July 10, 1897.

THE VITALITY OF THE TURKS.—Among the many services done to the Turks by Greece in the last few weeks not the least is to have given them an opportunity of showing how and what they can endure. The Times correspondent is much struck with their eagerness to fight and with the difficulty of killing them. He mentions one man whose abdomen was penetrated by a bullet, and who not only kept his place in the ranks till the battle ended but marched ten miles afterward. Another man with three wounds—two in the legs and one in the shoulder—continued on duty twenty-four hours, until an officer noticed his condition and sent him to hospital. Sometimes our alcoholism has been associated with our daring and our endurance as cause and effect, but here are qualities of the same sort in a non-alcoholic nation. Our contemporary's correspondent remarks further on the rapidity with which wounds heal, and says that medical men attribute it to the abstemiousness of the Turks. Here we should scarcely be able to match the race whose soldiers are ill-clad, ill-fed, and who take no alcoholic stimulants.—*Lancet*.

DEATH OF PROFESSOR CHARTERIS, OF GLASGOW.—Professor Charteris, of the Chair of Materia Medica in Glasgow University, died on June 7th. He was living at Comrie, in Perthshire, having obtained leave for the summer session, in order to recuperate after an attack of influenza. His illness took a decidedly serious change on Sunday, and he died on the following day, soon after the arrival of one of his colleagues.

Special Notices.

INFANT FEEDING.—In an instructive paper on the ever-interesting subject of infant feeding Dr. A. T. Cuzner (Alkaloidal Clinic) sums up the difficulties that stand in the way of cow's milk being a perfect substitute for breast-milk as follows: First, we have too large a percentage of casein in cow's milk (four per cent), while that of woman is but one; second, if to reduce this large percentage of casein we dilute with water, we are apt to overtax the child's digestive apparatus. On the other hand, if we can find some nitrogenous food-substance to add in addition to water, that will, as it were, dilute the casein yet increase the nutritive value of the milk, and not be a source of trouble to the child's digestive system, we will have done much to solve the problem. As a food product adapted for this purpose Dr. Cuzner looks with much favor upon Somatose, a preparation consisting of the albumoses of meat in an easily assimilable form, which is perfectly soluble in water or milk. Under the microscope, with a power of five hundred diameters, nothing is seen but some air bubbles, the mixture being semi-transparent. Having tested this preparation chemically, he indorses the observations of Dr. H. Wolf, whose experiments, made at the clinic of Prof. Monti of Vienna, have also demonstrated the value of Somatose as an addition to cow's milk both as rendering it more digestible and nutritious.

W. C. FREDERICK, M. D., Lono, Ark., says: I have used S. H. Kennedy's Extract of *Pinus Canadensis* (Dark), one to three of water, in sore throat from cold, with splendid results, and have now under treatment a little boy, three years old, suffering from strumous diathesis, who had been afflicted over a year with otorrhea. Having been using as an injection two drams of S. H. Kennedy's Extract of *Pinus Canadensis* to four drams of water, three to five drops, two or three times a day, the ear previously cleansed with castile soap. The little fellow commenced to improve from the very start, and is rapidly improving daily; the discharge has almost ceased. He has been on this treatment for about two weeks.

SANMETTO A STANDARD MEDICINE.—I have had occasion to use a considerable quantity of Sanmetto in bladder and urethral troubles, and have so far invariably found it equal to the occasion. It is assuredly as much a specific for the various ailments of the bladder and its appendages as quinine is for ague. That is saying a great deal, but it is true. Sanmetto is certainly a standard medicine, and deserves every confidence of the physician. I shall continue to use it in my practice with perfect confidence in its great merit.

JAS. T. ARCHISON, M. D., Lochland, Ky.

LABOR SAVING: The American Medical Publishers' Association is prepared to furnish carefully revised lists, set by the Mergenthaler Linotype Machine, as follows:

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THE AMERICAN PRACTITIONER AND NEWS

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No. 3.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ANTHROPOLOGY, OR THE STORY OF MAN.*

BY T. B. GREENLEY, M. D.

"To know what man is, we ought to know what man has been."

"The proper study of mankind is man."

In treating of the history of man we find it quite a complex subject, involving his antiquity, his species, unity of origin, and variety of races. It also involves his peculiar characteristics, physically and mentally, as distinct from the animal creation below him.

"To write such a history of our species," says Mr. Lawrence, "would demand a familiar acquaintance with nearly the whole circle of human knowledge, embracing that of the anatomist and physiologist to unfold the construction and uses of the corporeal mechanism, the surgeon and physician to describe its diseases, while the metaphysician and moralist employ themselves with the functions of the mind and moral sentiments. Man in society—his progress in the various countries and ages of the world, his multiplication and extension are the province of the historian and political economist, while the divine traces the higher relations that connect man with his Creator, with superior beings, and the future world.

"The distinctive characteristics of man are the following: (1) Smoothness of the skin and want of natural weapons of offense or defense; (2) the possession of two perfect hands; (3) slow growth, long infancy, and late puberty. (4) Menstruation of the female sex;

* Fourth annual lecture pertaining to Man, read publicly at Elizabethtown under the auspices of the Hardin County Medical Society.

exercise of the sexual functions not confined to particular seasons; refined and honorable conjugal sentiments. (5) Erect stature; (6) capability of inhabiting all climates and situations and living on all kinds of food; (7) great proportion of the brain to the face; (8) great number and development of mental faculties, whether intellectual, moral, or religious; (9) speech, letters, arts, and sciences; (10) perfectibility, or capacity of indefinite individual and social improvement," and might be added a universal belief in a Deity and the existence in a future state.

On account of the great difference in the physical development of the various races of the human family, some writers have contended that we are not all of the same species. If we compare the finely proportioned ancient Grecian with the woolly hair, flat nose, retreating forehead, and black skin of the negro, as well as the marked distinctive characteristics of many other tribes with those highly civilized, we find a vast difference. But no more so than we find in the proportions and forms of some of our domestic animals, as the horse and cow, each of which we know to be of the same species. We will allude to this subject again.

Antiquity of Man. This is a subject of much controversy among archeologists and other scientists, and involves a great difference of opinion as to the time he has existed on the earth.

Some contend that he was a preglacial resident, and that the glacial period commenced two hundred and forty thousand years ago. Another writer, Mr. Hopkins, says that it is estimated by some geologists that the glacial period commenced one million two hundred and eighty thousand years ago. Mr. Jukes is more reasonable in his estimate of the age of man. His calculation is that he appeared on the earth about twenty thousand years before our era, twenty-two thousand years ago.

Archeologists and geologists base their calculations as to the age of man on the character of the geologic formations in which his remains or implements are found. These remains are found in river gravel, caves, mounds, and lake-dwellings. But when there is such a vast difference in the estimation as to the age of these relics by our greatest authors on the subject, we must conclude that there is but little certainty to be placed on their estimates.

Sir Charles Lyell, the greatest of modern geologists, in his first writings expressed the opinion that there was no pre-adamite man,

virtually agreeing with the Biblical account of creation, but in his later treatise he agrees with some of his compeers, as Huxley, Darwin, Lubbock, etc., that man is of great antiquity. Mr. James Southall, in a very extensive work, entitled "The Recent Origin of Man," has reviewed the various authors who maintain that man is of very great antiquity. He shows very plainly the erroneous premises upon which they base their calculations. Geologists divide the existence of the earth into several ages, the Primary, the Secondary, the Tertiary and Quaternary ages, the latter being the present age. These are again divided into subdivisions. They also divide the existence of man into several ages, termed the Stone, Bronze, and Iron. The first, or Stone Age, is subdivided into the paleolithic, or rough stone, and the neolithic, or smooth or dressed stone age. The first of this division embraced that period in our history when the implements used for domestic purposes as well as hunting and warfare were formed of flint without dressing. These consisted mainly of arrow points, spear points, hatchets, etc. In the neolithic or smooth stone age these implements were dressed and made smooth by grinding or rubbing. The implements of metal were made of copper with a mixture of tin, which was called bronze.

There is but little reliance to be placed on the estimate of time which has elapsed since the occurrence of the ages allotted to be co-eval with man. The paleolithic or rough stone age in some countries is apparently of recent date. In our country the relics of that age are very numerous, and may be picked up in many places on the surface of the ground. Then, again, in many places in Northern Europe relics of the three ages co-eval with man's existence, to wit, the Stone, Bronze, and Iron, have been found together in caves, cemeteries, and lake-dwellings. In this particular allowance must be made for the time these countries became settled, as well as the character of the people who inhabited them. There are many tribes who are unfamiliar with the art of working in iron and brass even at the present day. Then, again, we find extravagant calculations on the part of scientists in regard to the age of organic remains of man, etc., found below the surface. Some thirty years ago Dr. Dowler found a skeleton of what he termed the Red Indian in the mud at the city of New Orleans, sixteen feet below the surface. He calculated the age of this relic to be over fifty-seven thousand years. Of course his estimate was made on the depth of the deposit over it. Dr. Andrews, of Chicago, exposes the error of this calculation very palpably in a communication to the

Princeton Review of October, 1868. He shows how rapidly the deposit takes place in many localities in the Mississippi Delta. Mr. Fontaine, in his work, remarks that many specimens of antiquity may be found between the present levee and Tamaulipas Street, where the area to the depth of more than one hundred feet has certainly been deposited within the period of sixty years. In making some deep excavations at Port Jackson, some distance from the Mississippi River, at a depth of fifteen or twenty feet below the surface a piece of wood had been exhumed which had evidently been shaped by human art, and dressed with tools which indicated the work of a highly civilized race of men. It was decided that those aborigines who had inhabited Louisiana over fifty-seven thousand years ago were an exceedingly cultivated people.

When this ancient relic came to be examined by men of common sense, it was found to have been squared with the broad-axe, bored with an auger, cut with a handsaw, and unmistakably the gunwale of a Kentucky flatboat. Mr. Fontaine says "the artesian auger has brought wood up unpetrified, and but little changed from common seasoned timber, from a depth of three hundred and twenty feet;" and he mentions the finding of the skeleton of a man fifty feet below the levee and beneath two tiers of stumps buried in the deposit only four years. From these facts Mr. F. concluded that the age of no fossil found in in the alluvium of the present delta of Louisiana can be correctly determined.

Mr. Alfred Hanson, who had lived in the city of New Orleans sixty-seven years, told Mr. Southall that he recollected when the deep channel of the river flowed where Tchoupitoulas Street is now built in the heart of the business part of it, a quarter of a mile from the present shore. No wonder such rapid changes take place in that great stream when the water runs so rapidly, and the banks are so easily washed. The banks on either side, being of loose material, are easily undermined by the current, washed away and carried to other localities and deposited, only again to be displaced in the future. Many plantations and towns have been destroyed in this way within the recollection of persons now living. Of course what is taken from one locality is soon deposited in another. Owing to these facts it is easily understood how impossible it is to estimate the age of any special deposit.

To further illustrate as to differences of opinion in regard to time to effect changes by action of water, we will refer to another locality

familiar to most all of us. I allude to Niagara River. The question was, how long did it require the water of that stream to cut its way from Lewiston up to the present falls, a distance of six miles. Mr. Bakewell made its age 12,300 years; Messrs. Lyell and Hall made it 35,000; Mr. Desont, 1,232 years; while Mr. Marcus found data to make it 64,842 years. It will be seen there is quite a difference between these scientists. In 1842 a survey was made, and again in 1875, and it was found a recession of three feet per annum had taken place, which would require 12,300 years to have made the distance of six miles; so it appeared Mr. Bakewell was correct in his estimate. Many more instances might be cited showing great variations in the estimates of different geologists and archeologists as to the time required for certain deposits and formations to have taken place, but this is unnecessary on the present occasion.

It is to be presumed that the exact time that man has existed on the earth never will be agreed to by all who claim to be scientists. If we take the Biblical account of man's creation, we shall have to allot him only about six thousand years, but scientists say it is impossible that such changes as we find have taken place on the earth's surface since the first indications of the presence of man could have occurred in so short a time. But Mr. Southall has very clearly shown that great changes have taken place in comparatively modern times. Owing to the want of time on the present occasion, I can only allude to a few of the many he cites. The shores of Asia Minor have risen with a rapid movement during the historical period. The ruins of Troy, Smyrna, Ephesus, and Miletus have gradually become more distant from the sea. Many of the Ægean Isles have become united, or become connected with the main land. The mountain of Lade in the time of Herodotus was an island, near which the Ionian galleys and the Persian fleet fought a battle. At the present day it stands in the midst of the plain of the Meander. The town of Priene, which in the time of Strabo was four and a half miles from the shore had been originally built on the coast. The village of Aya Soulouk, the site of the city of Ephesus, is now two leagues from the coast, and the former estuary which was commanded by the town is a marshy plain.

In the sixteenth century Angiolo Eremitano suggested that the isles of Venice were sinking at the rate of about a foot in a century. This hypothesis, derived from the comparison of the buildings and pavements of the streets with the water, has been since fully confirmed.

The town of Conca, once situated near the mouth of the Corustumio, has been entirely under the sea for some centuries, and the remains of two of its towers may still be seen beneath the waves. At Trieste pavements may be seen below the level of the sea. The encroachment of the sea on the one hand, and the formation of new land on the other, is not a matter of simply recent observation. A hundred years ago Goldsmith, in his "History of the Earth," recorded many instances of this kind. Buffon, he tells us, mentions that "on many parts of the coasts of France, Holland, England, Germany, and Prussia, the sea had been sensibly known to retire." Many instances are related where in these countries great changes have taken place in the geography of the country in modern times. Some cities have been left far inland, while at other places the sea has encroached on the land.

Then, again, other great changes have been wrought in our era by the action of earthquakes and volcanoes. We have an example of this character which has occurred in our country within the present century. I allude to the earthquake of 1811 on the Mississippi River, which destroyed the little town of New Madrid, and caused the formation of what is known as the Reelfoot lakes, and also the depression of a large section of country on the Missouri side of the river, now known as the sunk lands.

A great many instances of changes in the formation and conditions of the earth's surface might be cited which have occurred in our era, but those mentioned are sufficient for our present purpose. We wish merely to show it does not require millions of years of time for certain deposits to form, and for great changes to be wrought in the earth's surface.

A great many people are of the opinion that it was a matter of impossibility for a pair of human beings to have started in the world, six thousand years ago, and produced population sufficient to have accomplished all the works we now see on the earth as the result of human action. In the first place we must recollect that population in the early history of our race progressed in much greater ratio *per capita* than is accomplished at the present time. People lived in those days to be many centuries old, and their capacity for offspring was incalculable. Even in our day, when it is rarely the case that an individual lives one hundred years, we now and then learn of a person during his or her life having as high as two hundred or more living descendants. At this rate of increase in our short lived people it does not

require a very great mental grasp to conceive of the rapid reproduction of the race in the time of our early ancestors. When we look around and consider what has been accomplished in the way of population and improvements on this continent within the last three hundred years, we should not think it required an indefinite number of years to make the Old World as we find it to-day. In fact, you might say we have made a new world in comparatively a short time. There were very few white people in America three hundred years ago, and now the country is pretty well filled up with a teeming population, with all the advanced improvements pertaining to civilized life.

We can easily comprehend the fact, that from our earliest history man possessed the inclination to scatter abroad over the earth. This disposition seems to exist at present, and has been, as far down the vista of time as knowledge extends, prevalent among the human family. After the flood the various tribes springing from Noah's family spread out from their locality in Asia and gradually peopled the different sections of the habitable globe. The great Aryan branch peopled the most of Europe, the Semitic and descendants of Ham, Arabia and Africa, and the Mongolians, Eastern Asia, including China and Japan. Although these people became divided and subdivided into various settlements and states, and have different dialects or languages, a connection or similarity in this particular can be easily traced, making it very apparent that originally they were the same people. This matter will be alluded to again.

Some scientists are of the opinion, because the ruins of many ancient cities are being excavated at some depth below the surface, that they are of great antiquity. Of course the depth depends very greatly on the character of the country by which they are surrounded. If on a river or water-course, subject to overflow, like the Nile or Mississippi, we would expect to find the ruins much deeper than if situated on a plain not subject to the action of water. Or, if located at the foot of a mountain, the washings from it would naturally result in the accumulation of more debris than if situated on level ground. Then, again, the surfaces of certain localities are affected by volcanic action. Under these circumstances it would be rather difficult to say with any certain precision how long any special depth of deposit had been taking place.

Within our own period there exist the ruins of many ancient cities, which were in a flourishing condition at the commencement of the Christian era. We might allude to Antioch, Nineveh, Baalbec, Mem-

phis, Sparta, Delhi, Tyre, and Sidon, etc., and when compared with the more ancient ruins of other cities, as Troy, Babylon, Persepolis, Susa, etc., we find but little difference in the depth of the deposit over them, all mainly depending, as before remarked, upon their situation. I have omitted to speak of the ruins of cities destroyed by earthquakes or volcanic eruptions, as their depth would depend upon the degree of violence of the cataclysm.

As it respects the controversy as to the antiquity of man, it appears the majority are believers in Darwin's theory of his evolution and descent from the higher apes, and take the ground in favor of his great age. This may be on account of their opinion that man was originally savage, and that it required a million of years, more or less, by which he might civilize himself. If we had any evidence of a barbarous tribe ever having civilized itself this would be a plausible theory in favor of evolution. But, on the other hand, an objection to this theory might be cited. If man was evolved from the gorilla a million years ago, according to Darwinism we should have long since evolved a higher species than man. This should have been the case unless evolution was supervised by a supreme power, and man was to be the acme of evolution. Independent of this view we can not comprehend why the process of evolution should be arrested. It is doubtful whether the antiquity of man will ever be satisfactorily settled.

Archeologists have accomplished a great deal in bringing to light the ruins of ancient cities, showing the grandeur and magnificence of ancient times. They have also by correctly interpreting inscriptions proved the corroboration of some historical passages of Scripture.

Evolutionists and Biblical scholars agree as to the unity of our race, but in a very different way, the first contending that we are descended from the anthropoid ape, while the latter maintain that our first parents were created by the Deity himself.

In a lecture by the writer, entitled "The Evolution and Descent of Man," I think I have shown the improbability, if not the impossibility, of one species of animals evolving a species of a higher order than themselves. Such an opinion is in opposition to natural laws.

Some scientists regard the act of creation as something miraculous and of course unscientific, undemonstrable, and consequently not true, yet at the same time we may believe in spontaneous generation, and that a lower species can evolve a species of a higher type. And if you ask them if either of these processes can be demonstrated to make

them accord with scientific truths, we are answered that they could not be demonstrated at this time of the world's history on account of the changed conditions of life.

Being descended from a single pair of progenitors, of course it follows that the whole human race belongs to the same species. On account of the great difference in appearance and color and the great variety of tribes and races, some men of learning have contended we are not all of the same species. But it has been proved by miscegenation or intermarriage that the offspring of any two varieties are capable of propagating descendants. This is scientific proof that we all belong to the same species.

[TO BE CONTINUED.]

PSORIASIS.*

BY JOHN E. HAYS, M. D.

Professor of Dermatology, etc., in the Hospital College of Medicine.

Psoriasis is a disease of the skin which presents many features of interest. In this paper it is not intended to offer any original ideas, but simply to touch upon salient features of the affection, and to record some experiences with some well-known drugs in its management.

The etiology of psoriasis is still involved in mystery. One of the modern theories regarding its causation is that it is of bacterial origin, or a germ disease. Lang, of Vienna, was probably the first to advocate this view, but the germ found by Lang among the scales of a psoriatic patch has since been demonstrated to have no influence whatever in the production of this affection. At the present time so many facts stand opposed to the parasitic theory of its causation that few dermatologists are inclined to indorse it. It seems more tenable to regard psoriasis as being due to some faulty systemic condition, in which the cutaneous nerves over greater or less areas are involved in such a way as to pervert the nutrition of the skin in those areas, in other words the disease is a tropho-neurosis.

Whatever the immediate or determining cause may be, there can be no doubt that a special predisposition is required for the development of the disease. Heredity seems to be an important factor, Greenough stating that transmission in this way occurs in about one third of his cases. According to statistics males are more liable to psoriasis than

* Read before the Louisville Medico-Chirurgical Society, June 25, 1897.

females. It is usually an affection of childhood or early adult life, rarely occurring after the fortieth year.

Psoriasis is nearly always symmetrical in its distribution, and no portion of the skin can be said to be exempt from it. It does appear, however, to have a strong predilection for certain parts, for example, the skin covering the point of the elbow and that below the patella, and after these localities next in frequency comes the hairy scalp as a starting point.

With regard to the shape and extent of the patches psoriasis presents great variability. Cases may be seen where only one or a few well-defined patches exist, others again where the lesions are so numerous and diffused as to almost cover the entire integument. Distinctive names have been employed to designate the shape or other characteristics of the lesions, as psoriasis punctata, guttata, mimmularis, circinata, gyrata, and diffusa. These names do not imply different varieties of psoriasis, but simply indicate the manifold forms under which the affection may appear during its developmental stage.

The course of psoriasis is always chronic. Relapses are common. The general health does not seem to be impaired, as a rule, even in those cases where the integument is almost wholly covered by the lesions. Itching, often an annoying symptom in other skin troubles, is a feature that is almost if not entirely wanting in psoriasis. This is rather strange when we remember the derivation of the name of the affection—the word *psora* meaning itch.

The pathology of psoriasis presents an intricate problem which has not yet been definitely solved. Many dermatologists regard it as essentially a form of dermatitis; others look upon it as hyperplasia of the rete Malpighii or mucous layer of the epidermis; and again others locate the disease in the stratum corneum and regard the process as one of abnormal conification and overgrowth of the epidermic cells.

The diagnosis of psoriasis when the lesions are well developed should present little difficulty. The patches with clearly defined borders, an elevated red base covered with fine silvery-like scales, more or less imbricated, the bright red points which are seen on gently removing the scales, the symmetrical distribution of the patches and their predilection for the extensor surfaces of the extremities, the absence of moisture at any period of the attack, the absence as a rule of subjective phenomena, along with the usual healthy appearance of the patient, make up a clinical picture which can hardly be mis-

taken. When, however, the lesions are not well defined it is at times a matter of great difficulty to make a diagnosis. The principal affections which are liable to be confounded with psoriasis are eczema, lupus erythematosus, and the squamous syphilide.

The points of distinction furnished by eczema may be summed up as follows:

The lesions prefer the flexures of joints; margins of the patches are poorly defined; moisture at one time or another is a characteristic feature of the case; the scales are thicker and of a yellowish color, itching being usually a constant and annoying feature. In case of doubt careful search should be made over the entire body for typical lesions of either disease. A single characteristic patch will clear up the diagnosis.

With regard to lupus erythematosus, the predilection it has for the face—a part usually avoided by psoriasis—the presence of little plugs in the orifices of the sebaceous ducts, and the presence of superficial film-like scars, furnish very distinctive features. The squamous syphilide may be mainly distinguished by the clinical history of the case, the existence at the same time of other characteristic lesions in the skin glands or mucous membrane. There are papulo-squamous lesions of the palms and soles which somewhat closely resemble psoriatic patches, but which are, according to Fournier, “unmistakable certificates of syphilis.”

In the treatment of psoriasis the object to be aimed at is the complete removal of the eruption. For this purpose internal treatment may be serviceable by remedying any faulty constitutional condition that may be found to exist. There is no internal remedy that has any specific effect on psoriasis. At the commencement it is well enough to rid ourselves of the notion that arsenic is indispensable, although on the whole it may be regarded as the most effective internal remedy in a large proportion of cases. The employment of arsenic as a therapeutic agent in this affection is probably based on the assumption of its action on the epithelial structures of the skin. While recognizing the fact that the profession place an undue value on arsenic as a skin remedy, still my experience convinces me that the drug when properly administered exerts a beneficial influence over psoriasis in a certain percentage of cases. I will not assume to judge between the merits of the different preparations of arsenic, but in my experience the iodide given in moderate doses is

the one which has given the best results. Unfortunately the disease does not always yield to the arsenical treatment, consequently other internal agents have been advised and used with uncertain results. Among them may be mentioned the long-continued use of iodide of potassium. Hasland reports fifty cases treated in this way, forty of whom were cured. Other remedies, again, are cod-liver oil, phosphorus, liquor potassæ, and carbolic acid, none of which seem to exert much influence over the course of an attack.

A few years ago Bramwell advocated the use of the thyroid extract in this affection. He reported several cases of psoriasis treated by this remedy alone, in which the lesions completely disappeared in the course of a few weeks. Others using this remedy have noticed that it exerts little or no effect, and even sometimes seems to aggravate the trouble. I have only tried it in one case; but owing to the disagreeable symptoms the remedy produced it had to be discontinued before any decided opinion could be formed of its action on the lesions.

Very satisfactory results are often obtained through the local use of remedies. The external use of chrysarobin exerts a remarkable effect in the control of these lesions. In my experience, which extends to a number of cases of moderate intensity, chrysarobin has shown decided advantages over other remedies. The most satisfactory way to use it is to dissolve thirty grains in one ounce of traumaticine and paint the patches once in three days. The application should be followed by a painting of flexible collodion so as to protect the clothing and other things from the staining properties of the drug. This method of using chrysarobin has decided advantage over the usual way of using the agent in the form of an ointment.

The preparations of tar, especially the *liquor carbonis detergens*, are very useful local applications. The same can be said of sulphur and some of its compounds. Vlemingck's solution of sulphur, properly diluted, is very serviceable in the diffuse form of psoriasis.

Notwithstanding the number of good remedies at our disposal we may go through with the whole series without avail, many of these cases having a very protracted existence. As long as the etiology and pathology of the affection remain unsettled this will probably continue to be. As a matter of medical interest every case of psoriasis deserves close study and offers a large field to the physician for perseverance and ingenuity.

LOUISVILLE.

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, June 25, 1897, the Vice-President, Thomas Hunt Stucky, M. D., in the chair.

Epithelioma of the Larynx ; Edema of the Lower Eyelid. Dr. Samuel G. Dabney: This patient, Mr. S., is aged sixty-five years. He noticed the first trouble with his throat last fall. You will observe he is in very good general condition. The first trouble he complained of was a little soreness on swallowing on the left side. There was no sharp, shooting pain at first.

I saw him in January, 1897, he was then having sharp pains shooting up toward the ear, and also considerable pain on swallowing. Examination at that time showed a condition similar to what we see to-night. He says he has not lost much in weight. You will notice there is slight enlargement of the lymphatic glands of the neck.

By the aid of the head-mirror we can plainly see a mass which has a rough surface, about as large as an English walnut, in the larynx. The point of especial interest about the case is that the man is in such good general condition. Under the slight treatment that he has received since he has been under my care, he has no pain on swallowing and no lancinating pains up toward the ear. I take it there can be no question in the diagnosis of epithelioma of the larynx. I have not obtained a specimen of this growth for microscopical examination, because I did not think operative interference was indicated, and the manipulation incident to securing a portion of the growth might act as a factor in its more rapid development.

My object in presenting him before the Society is to see whether any hopes can be held out in regard to operative interference, a partial laryngectomy, or any thing of that kind. Statistics are so bad that I have never seriously considered the advisability of an operation. I believe the mortality is about ninety per cent, a very small proportion of recoveries, and few cases where life has apparently been prolonged.

Case 2. The next patient is a man aged fifty-two years. He has, as you will notice, a localized edema of the lower eyelid of the left side.

*Stenographically reported for the American Practitioner and News by C. C. Mapes, Louisville, Ky.

It is an unusual case, inasmuch as the trouble has persisted for so long; we often see such cases, but the swelling usually subsides within a few days. He says he had the tear duct probed at Richmond, Ind., last March; a lump appeared under the eye and has remained there ever since. He has tried almost every thing with view of getting rid of the edema, without success. The oculist at the time was syringing the tear duct with some oil and cocaine. The swelling did not appear immediately, but came on twelve to twenty-four hours afterward. It is an enlargement such as we sometimes have following probing of the tear duct where a false passage is made, or where we have an unusual amount of trouble and consequent manipulation in probing; but in those cases the edema always subsides in two or three days. In this case it has persisted for three months. There appears to be little obstruction of the tear duct, as I was able to pass a No. 3 Bowman probe without difficulty; there is no pain attached to the enlargement, and it is only because of its unsightly appearance that he desires it removed if possible. He says his family tell him that it gets larger when he coughs, but I think this is probably more apparent than real, although there is likely some connection between the tear duct and this puffiness. He has tried pressure by means of a bandage, but this causes so much pain that its use can not be tolerated. He says if the bandage is made tight enough to remain on, it causes pain.

He has been under the care of several physicians, and there has been no improvement. I would like to have any suggestions that can be offered as to the nature of the trouble, and its proper treatment.

Discussion. Dr. J. G. Cecil: I believe it would be advisable, in the second case reported by Dr. Dabney, to lay open the enlargement freely; a small incision in the tissues under the eyelid would leave a very slight scar, which could be easily taken care of; if there is any thing in the enlargement it could then be removed, and a cut would certainly do no harm. It looks to me like a local edema such as might result from a bee sting.

Dr. T. H. Stucky: I would be inclined to try multiple needle puncture and pressure; I would make forty or fifty punctures and then apply a suitable bandage so as to obtain the proper amount of pressure.

Dr. J. G. Cecil: I would not advocate doing any thing with the case of epithelioma of the larynx reported by Dr. Dabney: I would make the patient comfortable as long as I could, then advise him to commit suicide.

Dr. T. H. Stucky: It strikes me that the advice given by Dr. Cecil is best. We all know that laryngectomy has been exceedingly unsuccessful, and there is little to promise this patient. As has already been suggested, it will eventually be necessary to perform a tracheotomy. The interesting point to me about the case—I have seen two or three of them since I have been here—is the amount of disturbance being so small. Another interesting point, as stated by Dr. Dabney, is the absence of pain and the very slight systemic disturbance, comparatively little loss of flesh, and comparatively slight interference with deglutition. In two of the cases I have seen these symptoms seemed to stand out exceedingly prominently. They complained of great pain. In so far as an attempt at removal of either a part or the whole of this growth, I believe it to be contra-indicated.

Report of a Peculiar Case. Dr. F. C. Simpson: I recently had a case, which unfortunately died, in which a very peculiar condition of affairs developed. The patient was a lady, forty-seven years of age, who passed the menopause last June, just a year ago. To go back a little further, she had an attack of dysentery two years ago, which extended over a period of three weeks. She apparently recovered from the attack, but in three or four weeks she had a recurrence of the dysentery in a mild form, and from that time up until her death she had occasional attacks of mucous diarrhea. As I have said, last June she began to have the well-known phenomena which accompany the change of life; she missed her period for a couple of months, then menstruated twice in an interval of two months; then missed for three or four months, menstruating for the last time in January, 1897. She seemed to be in very good health in every way except when these attacks of mucous diarrhea would come on, then she suffered with headache, slight fever, and a great deal of pain. These attacks usually lasted not to exceed three days. Since March they have become more frequent, and her headaches increased in severity. I examined her urine at that time and found nothing abnormal. She went on, having more frequent headaches, passing all the time about the normal amount of urine. The mucous diarrhea became more frequent; every two or three weeks she would have an attack lasting a few days, then it would subside and she would have constipation.

Four weeks ago I had Dr. Mathews to see the case in consultation, thinking possibly there might be some trouble with the rectum or

lower portion of the colon. He examined the patient but found nothing wrong. He said in his opinion it was a sub-acute condition resulting from this attack of dysentery two years ago. He advised giving her high enemas of hot boracic-acid solution. I gave the first enema on the second day afterward. She had in the course of an hour a most terrific headache; the solution was passed *per rectum* in about ten minutes. Her headache lasted twelve or fourteen hours. I gave her another high enema four days later, and following this she had another severe attack of headache lasting for twenty-four hours. As already indicated, she was in very good health, except the headaches and diarrhea alternating with constipation, and was at my office a week before she died. I gave her, three weeks ago, another enema. I had about abandoned this method of treatment, having seen no especial good results, and as she had such severe headaches following them; and in half an hour she had another headache. She suffered with headache all night. I told her to take twenty grains of bromo-soda every three hours, unless the headache became too severe, then she might take one quarter grain of morphine. She took one quarter grain of morphine and repeated the dose at the end of three hours. She took in all three quarters of a grain of morphine without very much evidence of the effects of opium. This was on Saturday. I did not see her again until Monday at noon. On Sunday she was up and able to eat her dinner. When I saw her Monday at noon she was in bed and had been suffering severely with headache, but said she felt very comfortable at that time. There was no evidence, as far as the pupils were concerned, that she had ever taken any opium. I noticed, after talking with her a short time, that she had a partial collapse, but I thought it was a nervous phenomenon. She had a slight attack of nervousness previously and had some of the same symptoms. I did not advise any thing, except asked to have a specimen of her urine saved for me. I went back the same afternoon, and she had become partially comatose. She would answer questions, but her articulation was very defective. An examination of the urine showed a small quantity of albumin; I did not have it examined microscopically, as perhaps I should have done. On Tuesday morning she was practically comatose. I had begun stimulating the kidneys on Monday afternoon, as she was not passing very much urine, and kept it up Tuesday without getting very much response. Tuesday night I commenced giving her pilocarpine hypodermatically, and on Wednesday morning Dr. Cecil

was called in consultation. She was then at a stage wherein she could not swallow without difficulty. He advised the hypodermatic use of digitalinum verum. This was continued Wednesday afternoon, getting an increased amount of urine, but no evidence of clearing up of the comatose condition. She went on, and died Friday afternoon.

The question came up in my mind what effect did these high enemata have? Was there any pressure from the colon on the kidney which produced the headache? Of course it is evident she had a diseased kidney for some time. I take it she had a cirrhotic kidney, and this may account for the coma coming on as it did gradually.

Discussion. Dr. J. G. Cecil: I had the privilege of seeing this case with Dr. Simpson. I was not able to throw much light on the subject at that time, and can not do so now. It would be interesting to know what, if any, bearing the high injections had in the provocation of the severe headaches from which the patient suffered. I have never been able to conceive of any relations between these two conditions, and have never observed such a condition before; as to why headache should immediately follow a high injection I can not understand. If I remember correctly, there was no report of suppression of the urine in connection with the injections. When I saw the case the patient was comatose. It is uncertain as to what effect the high injections had upon the kidney, but the two things seemed to be close enough together to stand in the relation of cause and effect. When I saw the case with Dr. Simpson there was nothing suggestive of any special trouble except suppression of the urine, which was nearly complete at that time, she having secreted only a few ounces in the previous thirty-six hours. At that time the only thing which gave promise of relief seemed to be the hypodermatic injections of digitalinum verum, which I was very glad to hear Dr. Simpson say acted beneficially as regards an increased amount of urine. It has been my observation that digitalinum verum in $\frac{1}{8}$ to $\frac{1}{4}$ grain doses will often stimulate the kidney when nothing else will.

Dr. Turner Anderson: I agree with Dr. Cecil that I do not see any possible relation between the rectal enemata and the headaches from which this patient suffered. That is quite an unusual feature, yet we have positive clinical assertion that such was the case. Each injection of boracic acid solution was followed by headache lasting a considerable length of time. I do not see how it is possible, even upon theoretical

grounds, to explain why an injection could produce such profound trouble with the cerebrum as to cause a severe headache. We would expect in a case of this kind that the urinary secretion would be increased, a quantity of water being thrown into the system, absorption of the water taking place, that this would really have a beneficial influence upon increasing the urinary secretion. I am very much afraid of morphine in kidney affections. The profound coma which terminated in death seemed to have started in the administration of $\frac{3}{4}$ grain of morphine: $\frac{3}{4}$ of a grain of morphine in $\frac{1}{4}$ grain doses every three hours multiplies so rapidly that if there is the least amount of kidney involvement, it certainly becomes a very dangerous quantity. Morphine is a dangerous medicine, and especially is this true where the patient suffers from any affection of the kidneys. The more I observe the action of drugs, the more I become convinced that $\frac{1}{4}$ grain of morphine is a full hypodermic dose. The longer I practice medicine the more careful I become in the use of morphine.

Dr. Wm. Bailey: Speaking along the same line with Dr. Anderson, I would express my conviction that in most kidney affections morphine is strongly contra-indicated. At the same time the history of this case does not seem to show clearly that the trouble was due to the administration of the morphine. If I understood the doctor correctly as to the time the morphine was administered, he stated that it was on Saturday; that on Sunday the woman had sufficiently recovered to be up and take her dinner, not at that time even showing any effect of the morphine, and the history is that the coma did not develop until Monday, forty-eight hours after the administration of the morphine. It was not stated, and I would like to ask now, whether atropine was combined with the morphine. In my judgment morphine is much less dangerous in its influence on the kidney when combined with atropine, inasmuch as stimulation to the heart no doubt to a certain extent improves the tension in the renal artery and elimination is not affected as seriously when atropine is combined with morphine as when morphine is given alone. I feel much safer to administer morphine in Bright's disease, when there is any indication for it, provided I combine atropine with it, but I think that, if the doctor had been as thoroughly convinced on Saturday of any serious lesion of the kidney as he was on Monday, he would not have directed or allowed such doses of morphine. In the second place, in giving the history of the case I would like to have known what was the effect of the pilocarpine injections. Pilocarpine

was given, but the doctor did not state whether he procured the physiological effect of the drug, inasmuch as it is regarded as an efficient means of elimination under such circumstances. A very profuse elimination is sometimes produced through the skin by the action of pilocarpine, and the large amount of urea that may be eliminated by this process makes it a valuable and safe remedy in such conditions, except that possibly the depressing influence on the heart might be objectionable. The history does not state whether such influence on the heart was produced or not. Then I am a little surprised, knowing how careful Dr. Simpson is, that he did not pursue his investigations and have a microscopical examination made after he found albumin, however small the amount, associated with symptoms of coma; why he did not confirm himself then by having the urine examined microscopically. I think he made a mistake in not doing this. I would not hold him responsible, however, for the death of the woman, inasmuch as it was a grave condition, and has gone to a "grave" end.

Dr. J. M. Williams: I am rather inclined to believe that by the use of high enemas pressure was exerted upon the left kidney, which was probably the seat of nephritis; there was absorption, then, of urea which gave rise to the headache. The high enemata used I believe were responsible for the severe headaches in this way by pressure.

Dr. T. S. Bullock: I would like to ask what quantity of water was injected each time, and strength of the solution used. The relations of the colon and the kidneys are not very intimate, and it would require a large amount of water to exert sufficient pressure to interfere with the functions of the kidneys.

Dr. Wm. Bailey: Pressure from the colon would probably be only upon the left kidney; it is not likely that the colon could be sufficiently filled to make pressure on the right side. The question is whether this woman, being subject to headache—and we have the history that she was in the habit of taking morphine for such conditions, that she had suffered many attacks of headache before—whether on account of nervous disturbance the headaches were brought on by the use of the injections, and whether this had any influence on the kidneys.

Dr. J. M. Williams: It is possible that this trouble was entirely in one kidney, and that might have been the left; we do not know of course whether one or both kidneys were involved. If the left kidney, pressure from the colon would be direct, and even a small quantity of water injected into the descending colon would, with the patient

lying on her back, make direct pressure upon the kidney. It matters not whether the fluid injected was boracic acid solution or plain water, it would act in the same way. I do not believe the boracic acid had any bearing on the case whatever.

Dr. F. C. Simpson: The quantity of the solution used was three quarts each time; she was unable to stand more than this amount; the strength of the solution was half an ounce of boracic acid to three quarts of water. In regard to the morphine I am like Dr. Anderson, I believe that was the beginning of the end. I believe the morphine exerted a very unfavorable influence upon the kidneys. I had examined the urine previously and found no evidence of kidney trouble; but had I suspected any kidney lesion I would not have advised her to take morphine. She had been suffering with headaches for years, and had frequently taken small doses of morphine for their relief. She was very nervous; I do not believe I have ever seen a woman passing through the menopause exhibit so many nervous phenomena. She had been so exceedingly nervous for seven years, she told me, that any little excitement was sufficient to cause severe nervous disturbance and headache. I think the morphine was the cause of the final outcome. As I have said, I only advised $\frac{1}{4}$ grain, and her son said he understood me to say she should take $\frac{1}{4}$ grain, but the fact remains that she took $\frac{3}{4}$ grain. It looks a little strange to me that she should go on for over forty-eight hours after taking the morphine before she showed any symptoms of it. I will add that she passed urine up till Friday noon. She died Friday night at eight o'clock. She had been passing urine, passed it involuntarily during Thursday and Friday, but the nurse said there was considerable saturation of the clothing under the patient. She passed during the day, Wednesday, which they were able to collect, twenty-four ounces of urine from the administration of digitalinum verum.

In regard to the pilocarpine, she responded to each dose; she had a profuse sweat which continued from an hour to an hour and a half, still there was no relief of the coma. Pilocarpine was repeated every four hours with a prompt response each time.

In regard to pressure on the kidneys, I believe it was a cirrhosis, and it might have been the left kidney which was involved, and if so pressure from the colon distended with water may have had some effect, but certainly this condition of the kidneys had been coming on for some time. I am sorry that I did not have a microscopical examination

made of the urine. I usually do so, but in the worry and grave condition of the patient the matter was overlooked. The urine by ordinary tests showed a slight amount of albumin from Monday until Friday, and several examinations were made during this time. The effect of the pilocarpine on the circulation was not very depressing. The circulation kept up exceedingly well. She had rather a tension of the pulse, and it never went above 90 to the minute until Friday morning, when it was probably 110, then it began to increase in frequency; Friday afternoon it was 140, and she died Friday evening at eight o'clock.

It was a very interesting case to me, and several things came up in it that were rather peculiar. I believe there was a combined effect from the enemata and the morphine; following each injection there was severe headache, but morphine was taken only after the last injection. I had made up my mind not to give her any more enemata, believing that they had some effect in the causation of the intense headache, and further because they had been productive of no results as far as controlling the mucous diarrhea was concerned, although it must be said that only a few injections were given. She would pass mucus after passing the water injected for perhaps half a day, then she would become constipated. On Monday after the last enema she told me she passed little or no mucus, that the water came away; she had two or three actions which were stained with fecal matter but with little or no mucus.

Dr. T. S. Bullock: Further illustrating the bad effect of morphine I have a case in point: I did a laparotomy not long ago upon a young woman who was very well nourished, and the operation was an extremely simple one. The appendages were removed from both sides, both were badly diseased, large pus-tubes, and one ovary had degenerated into a complete cyst. The girl was taken off the table in good condition. I did not go back to see her that day, but the gentleman who had referred the case to me called late in the afternoon; she was a little restless, and the doctor, not having very much experience in this line of work, gave her one half grain of morphine hypodermatically. I saw her next morning; she had never ceased to vomit; her stomach would retain nothing; even calomel powder placed dry upon the tongue would be immediately rejected; high enemata proved futile; no gas or any thing else passed by the bowel. She died on the third day of obstruction, the death being due, I think, entirely to this unusually large dose of morphine given under the circumstances. It is a well-known and

strictly observed rule that in this character of cases no opiate whatever is indicated ; if it becomes necessary the most minute doses, one sixteenth to one twentieth grain, should be given. This is about as large a dose as is admissible. Of course, in the case I have reported the obstruction may have been due to something else, but there was very little raw surface left in the abdomen, and if adhesions had been the cause of the obstruction the girl would have lived longer. Certainly not enough time had elapsed for adhesions to form sufficiently to interfere with the bowel.

Dr. J. A. Ouchterlony: In listening to what was said on the subject of morphine, my mind reverted to a case I saw a good many years ago and had under treatment for quite a while, that illustrates the very opposite condition, an extreme tolerance to the drug, and it is wonderful how the kidneys do accommodate themselves. I was consulted by a lady who then was past the meridian of life, who told me she had been taking morphine for a good many years, and said she wanted to quit. I asked her how much she took. She replied that she did not know. I said, "You must have some way of making it out." She said she "poured it out in her hand." When asked to show me how much, she poured out into her hand the quantity she was in the habit of taking. I took it to the druggist and had it measured, and there were thirty-one grains. She took that quantity once a day. I placed her in a locality where I thought I had her under control, and managed in the course of a few weeks to reduce the quantity to one eighth of a grain in the twenty-four hours, and then one day she felt nervous and went over to the drug store, and although I had cautioned the druggist against letting her have any opiate, he sold her some laudanum. When I mentioned the matter to him, his reply was that I had requested him not to sell the patient *morphine*, but had said nothing about *laudanum*. The woman continued to take that quantity of morphine for years, and she continued to take it for years afterward, because she very speedily relapsed into the habit—thirty-one grains in the twenty-four hours—yet a case has been reported to-night where a patient died after taking three quarters of a grain.

The essay was read by Dr. John E. Hays ; subject, "Psoriasis." [See page 89. No discussion.]

Ophthalmia Neonatorum. Samuel G. Dabney: In the last ten years I have seen a great many cases, as all of us do, of ophthalmia neona-

torum. It has been a rule with me, when I see a case where there is any evidence of involvement of the eye, to carefully cleanse the eye, and instruct that it be kept clean. If I find any doubt about the family keeping it clean, I employ a trained nurse if possible.

Two weeks ago I saw a little boy who had been delivered a few days previously, delivery with forceps. One eyelid was slightly wounded in the process of delivery, and the little child developed a purulent ophthalmia on the fourth day after birth. I saw it on the sixth day, and at that time both eyes were involved, but both corneæ were clear. I expressed the opinion that the child would recover, and said that both eyes would get well. For the first two days I had for attendants two women at the house, and think they followed instructions to the letter. I had them wash out the eyes of the child every fifteen minutes with bichloride of mercury and chloride of sodium solution, one grain of the bichloride of mercury, one dram of chloride of sodium, and a pint of water. I was not satisfied with the child's condition at the end of two days, and employed a trained nurse. She remained a week, and did, as far as I could tell, most excellent work. The pus seemed to be diminished somewhat in amount, but swelling continued. Then the cornea of the eye that was first affected began to show a yellowish color, although diminution of the pus was very marked. I kept up the same line of treatment, only putting in a little atropine solution, one grain to the ounce of water, three or four times a day, and touched the lids with nitrate of silver; and I should say from the first, daily applications of nitrate of silver, ten grains to the ounce, were made. The first eye went on getting progressively worse despite all care and treatment. The second cornea became involved, and I then told them that one nurse was not enough. From that time two trained nurses were in constant attendance, giving absolute attention every ten minutes all the time, and notwithstanding that the corneæ of both eyes have sloughed, and I think the child will lose both eyes.

This is the first case I have ever seen which has resulted so disastrously. Looking back over the case I can not see any thing that has been left undone that could have been done, excepting perhaps we should have had two trained nurses from the beginning. The nurse that was in charge of the case worked, I may say, eighteen hours out of the twenty-four, and was faithful and efficient.

I remember a few years ago a case was reported by one of the Philadelphia oculists in which there was a similar result. In his report he

stated that he remained with the child himself for considerable time. He not only had a trained nurse, but washed the eyes himself every five or ten minutes while he remained with the child. The case I have reported simply illustrates how these rare exceptions occur, and how they will baffle all our efforts and mislead us in the prognosis entirely.

I tried argonin in this case; but, not apparently getting any benefit, its use was discontinued. I used a thin compress of hot water toward the last when the cornea became involved. I think the iced cloths are not indicated when the cornea becomes involved.

The father of the baby asked the cause of the trouble. I told him it had every appearance of being gonorrheal. He then admitted that at the time of his marriage a year ago, and even up to the present time, he would have some urethral discharge after coitus and even after moderate drinking. This had been the case ever since he had gonorrhea, shortly before his marriage.

Formal in proportion of 1 to 1,000 was also used as a wash; but, for controlling the pus, the frequent cleansing and silver applications seemed to do best.

When the spread of the corneal ulcer resisted other means, I tried the application of the actual cautery. I have sometimes seen this work admirably, but it failed here.

This child was born at full term and its general condition good, making the disastrous result the more remarkable. I report the case because of its rarity. I believe we might see a hundred or perhaps a thousand cases without such a result. I only know of one other such case, and that has already been referred to.*

Dr. T. S. Bullock: I have seen a great many cases of ophthalmia neonatorum in the Lying-in Hospital, New York, in which a similar line of treatment was followed, but in addition they kept sheet lint wet with ice-cold water over the eyes. Every few minutes the lint would be removed and the eyes bathed or cleansed with an antiseptic solution. I have seen several babies and one nurse, whose eyes were affected in this way, who became totally blind despite all treatment.

Dr. J. M. Ray: We are all aware of the ravages of ophthalmia neonatorum, but this will be more forcibly impressed upon any of you who will take the trouble to visit the Kentucky Institution for the Blind and see the number of children there who have become blind

*In the New York Medical Journal for June 26, 1897, Dr. Lucas Howe states that Cohn's statistics show that about five per cent of cases of ophthalmia neonatorum lose both eyes despite the best and most prompt treatment.—[S. G. D.]

from this disease, and you can then very well judge how sometimes even under the very best of treatment a case will be lost. I have never lost a case of ophthalmia neonatorum in a strong, vigorous, full-term child, where I have gotten hold of the case before the cornea became involved. I have seen two or three cases in premature or marasmatic children in which the cornea seemed to melt away like snow before the sun, treatment having no influence on the course of the disease. I have never seen any beneficial effect from the use of the bichloride of mercury in the treatment of ophthalmia neonatorum; I gave it a thorough trial, but have long since discontinued its use. I have never yet seen a case of ophthalmia neonatorum in which I have not positively seen the benefit of applications of the nitrate of silver judiciously applied. I have gone into the sick-room and have seen children with pus all over the lids, etc., and applied nitrate of silver solution, and had the family say, on my next visit, "the pus discharge from the eye is not nearly so profuse as it was before you made that application," when it had been only a few hours, showing the rapid beneficial effect of the solution. I follow out the routine treatment of cleansing the eyes every ten to twenty minutes, depending upon the profuseness of the pus flow, the amount of irritation produced around about it, etc. There is something in the suggestion made by Wilson on the use of vaseline. After we wash out the eye we often find that the lid and the surrounding parts are very much excoriated from the application of nitrate of silver and the suppuration which has been going on. I am in the habit of filling the eye with vaseline after washing away the pus carefully. It protects the skin, covers the mucous membrane, prevents the lids from gluing together, and allows the pus to come out between the lids more rapidly than when we do not use it,

As to argonin: The first case in which I used this preparation was on the person of a premature child having ophthalmia neonatorum; the argonin stopped the pus flow very effectually. I ordered a five-per-cent solution of argonin, and only three or four applications were made before the flow of pus was arrested. I have used it in one other case instead of the nitrate of silver, and it seemed to do just as well as the silver. It was used by dropping it in the eye twice a day. Each application causes an expression from the attendants that the pus flow is much less. Argonin seemed to control it promptly and effectually. I use the saturated solution of boric acid, washing the eye frequently. If I get hold of the case early, within the first twenty-four or forty-eight hours,

if there is a puffiness about the lids with a discharge of thick, yellowish pus, I advise the use of ice cloths. When the cornea becomes involved I think the ice cloths should be stopped. Some authorities go to the other extreme and advise the application of hot water even up to 135° F. Commencing at 98° F., and gradually increasing the heat, they say water can be used up to 135° F. Hot water is highly recommended by some oculists, especially after the cornea has become involved. They even press the lid open and apply the hot water on the exposed cornea. The case referred to was reported at a meeting of the American Ophthalmological Society, and was one in which there was I think no specific history. It was treated in the classic manner upon which we are all agreed, still both corneæ were involved and both eyes were lost. I think the general condition of the child controls the prognosis to a very great extent; in strong, healthy, vigorous children we may expect less severe corneal involvement than in premature or marasmatic children. It is sometimes difficult to get a trained nurse that is sufficiently efficient to wash out the eye without destroying the corneal epithelium. When this is rubbed off with manipulations, pus gets into the corneal tissue and necrosis rapidly follows.

Dr. J. G. Cecil: In such cases, where we know there is a liability to infection with gonorrhea, where we have reason to believe one or both parents to be the subject of the disease, how soon may we expect manifestations of this affection in the eyes of the infant? And are there any peculiar symptoms in the affection which would enable us to differentiate this from the ordinary slight eye troubles which we often see, probably from defective cleansing in the first few bathings of the newborn child?

Dr. S. G. Dabney: I did not go very fully into the subject of ophthalmia neonatorum. The last question asked by Dr. Cecil I think is an exceedingly pertinent one, and I can not help thinking that most of the cases, or the very great majority of them indeed, that recover under slight treatment are not gonorrheal in origin. I believe we have means of differentiating with a fair amount of certainty, even from the clinical appearance, the gonorrheal ophthalmia of infants from the non-gonorrheal. Those cases where there is a little thin watery discharge, where the lids are easily opened, where there is little swelling of the lids, are not gonorrheal. Where we see the lids greatly swollen, with a thick yellowish pus oozing out between them, the great majority of the cases are gonorrheal and require prompt and active treatment.

The non-specific cases are the ones that get well so easily and quickly under simple measures. As to the time we may expect the gonorrheal cases to be manifested, the average time is three to five days. It may be deferred longer, and in violent cases may be observed earlier. Like Dr. Ray, there is some question in my mind about the value of the bichloride of mercury so far as its antiseptic influence goes, yet combined with boracic acid in solution it makes a good eye-wash, and we have the advantage of its possible germicidal power at least. The best way of cleansing the eye is by means of a fountain syringe with a little pipette, and instructing the nurse how to pull open the lids and direct the point of the syringe well down in the conjunctival sac. I question very much whether vaseline aids much in controlling suppuration. However, it does keep the lids from sticking together, but unfortunately in severe cases they are absolutely pressed together, the swelling forces them tightly together, and of course vaseline does not prevent that. The main disadvantage I have found in its use is that it makes the lids slippery and rather hard to open, requiring more time at each cleansing. In regard to preventive treatment: It does seem to me, in the light of scientific research, that it is a mistake of the general practitioners, who deliver these babies, not to put nitrate of silver in their eyes at once. I believe this ought to be the routine treatment. The statistics of Crede show that ophthalmia neonatorum has been reduced from ten per cent to one tenth of one per cent under the instillation of nitrate of silver, two-per-cent solution—two drops put in the babies' eyes at birth.

JOHN MASON WILLIAMS, M. D., *Secretary.*

THE USE OF SULPHATE OF SODIUM AS A HEMOSTATIC.—In the *Revue Medicale de la Suisse Romande* of January 20, 1897, Reverdin contributes an interesting article upon this subject, experimental and otherwise, and concludes that small doses of sulphate of sodium (two grains every hour) are of great value in certain cases of capillary hemorrhage for the purpose of arresting the flow of blood. He has also found this method of treatment of value for the control of graver hemorrhages. His experiments upon animals seem to show, however, that the remedy is only of value if given by the stomach or injected into the veins. Under these circumstances it distinctly increases the coagulability of the blood. On the other hand, it is a noteworthy fact that its administration subcutaneously does not produce the same result.—*Therapeutic Gazette.*

Reviews and Bibliography.

Atlas of Clinical Medicine. By BYROM BRAMWELL, M. D., F. R. C. P. (Edin.), F. R. S. (Edin.), Assistant Physician to the Edinburgh Royal Infirmary, etc. Volume 3, Part III. Edinburgh: Printed by T. and A. Constable at the University Press. 1897.

In the closing part of this superb undertaking of Professor Bramwell are embraced Pseudo-Hypertrophic Paralysis and other Forms of Progressive Muscular Atrophy, Cyanosis and Congenital Heart Disease, Calcareous Degeneration, Chlorosis, Pernicious Anemia, and Alopecia Areata. Besides plates representing these subjects, there are others of dementia and lupus.

This forms the last installment of one of the most painstaking and thoughtful tasks ever undertaken in the field of medicine. It marks a departure in that every fact is verified by the most competent investigation. It is not to be inferred by this that the author has not made errors of observation and of deduction. From this no man is free, it matters not how learned or how able. In the matter of treatment this is especially true, for where diseases get well with all sorts of treatment and without treatment it is difficult to know in very many cases just what our treatment has accomplished. Let the whole field of medicine be gone over again and even again in this painstaking and philosophically skeptical manner and sometime medicine will come to stand with its feet on the rock of truth.

Dr. Bramwell's work must prove most helpful, even if only the method of the author is impressed upon the reader and becomes his guide in the work of investigation. For what it must accomplish in this way, its influence can never cease to be felt in medical literature. D. T. S.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. In photo-lithochromes from Models in the Museum of the Saint Louis Hospital, Paris, with Explanatory Woodcuts and Text. By Ernest Besnier, A. Fournier, Tenneson Hallopeau, Henri Feulard, and L. Jacquet. Edited and annotated by J. J. PRINGLE, M. B., F. R. C. P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. To be published in twelve parts at \$3.00 per part. Parts VIII and IX. For sale by subscription. London: The Rebham Publishing Co. Philadelphia: W. B. Saunders. 1897.

In the notice of previous numbers of this Atlas occasion has been taken to refer to the remarkable artistic design and finish of the illustrations. It is not extravagant to claim that nothing ever done in the line of medicine surpasses if indeed any thing on a large scale has approached it. Of the subject-matter it is not necessary to speak. The names of the authors and the mere announcement of the official positions they occupy, where science and artistic excellence meet as nowhere else, is sufficient guarantee. While helpful in the highest degree to the general practitioner, the skin specialist can not afford to deny himself the use of this atlas. D. T. S.

Abstracts and Selections.

DISINFECTION BY VAPOR OF PHENOLS.—In a thesis for the M. D. of the Victoria University Dr. J. Mountfort Johnson, of the Owens College, Manchester, narrates certain experiments he has made to ascertain the values of the vapors of the carbolic acid group as germicides. "No. 5 carbolic" is said by the makers to consist almost entirely of cresylic acid, there being but a small percentage of phenol present. Dr. Johnson found that the vapor of 12 ounces acting for sixteen hours in a room of 1,500 cubic feet capacity did not kill staphylococcus, bacillus coli communis, anthrax spores, or the bacillus of cholera. There was only inhibitory action. The bacillus of typhoid was the only one killed. The vapor of izar he found too heavy for disinfecting purposes in this way. In the "strength of 8 ounces to 1,500 cubic feet there is not sufficient penetration to even inhibit growth." The vapor deposits on glass as a fine film. When 12 ounces of cresol (commercially pure) were evaporated in a room of 1,500 cubic feet the vapor was generally sufficient to destroy a six days' growth of the bacillus coli communis, the cholera bacillus, and a five days' agar culture of typhoid, but sporing anthrax on silk threads grew more abundantly than the control. Absolute phenol vapor had an advantage over izar or "No. 5" in its greater diffusibility and penetrating power. It even killed germs of such resistance as staphylococci and streptococci when wrapped in an envelope of filter paper. It killed other microbes exposed to the vapor, with four failures out of thirty-three pieces of inoculated material employed. In three of the four the failure was evidently due to an accident of position. Dr. Johnson considers "that the vapor of absolute phenol in a strength of 0.64 per cent is a reliable germicide for the majority of these microbes when exposed to its action in an ordinary room for sixteen hours," but recommends a working strength of 1 per cent, that is, the evaporation of 12 ounces for every 1,000 cubic feet. The thesis also deals with the experiments of other observers on these and other vapors, and details Professor Delépine's method of disinfecting walls by nascent chlorine obtained from bleaching powder. We are glad that the youngest of our Universities is encouraging original research on the part of its graduates. We learn from other sources that a considerable amount of sanitary assistance is being given to the health officers by professors of the Colleges affiliated to this University, not only in Manchester, where Professor Delépine has been working along with Dr. Niven at the tuberculosis question, but also in Liverpool, where the subject of tuberculous milk is obtaining serious attention, and in Leeds, where for a couple of years Professor Trevelyan has been doing good work in the bacterial diagnosis of diphtheria.—*British Medical Journal*.

THE EFFECT OF THE ROENTGEN RAYS ON THE TUBERCLE BACILLUS AND ON DIPHThERIA TOXIN.—The question whether the Roentgen rays exert any influence on bacterial life is of considerable interest, and conclusive evidence on at least a part of the subject seems to have been arrived at by Dr. J. Brunton Blaikie, President of the Edinburgh Royal Medical Society. His experiments, published in the current number of the Scottish Medical and Surgical Journal, were as follows. Portions of glycerine agar having been placed in small boxes of aluminium, which is more transparent to the rays than glass is, they were sterilized and inoculated with streak cultures of the tubercle bacillus. At the same time four healthy guinea-pigs were inoculated with twice the minimum lethal dose of diphtheria toxin, and the remainder of the diphtheria toxin was placed in another aluminium box. Three of the boxes containing tubercle cultures, two of the guinea-pigs and the box with the toxin, were placed under the full influence of the rays generated by a four-inch spark coil and a good focus Crookes's tube. It was necessary to stop the current occasionally, as otherwise there would have been danger of injuring the tube, and on this account, although the subjects of experiment were placed immediately under the Crookes's tube for a working day of about thirteen hours, they received only eight hours of actual exposure to the rays. Next morning two more guinea-pigs were inoculated with the toxin which had been subjected to the rays. The following was the result of the action of the rays on these guinea-pigs: two that were exposed to the rays after inoculation with twice a lethal dose of toxin lived respectively for one hundred and one and fifty-five hours after inoculation. Two that were inoculated with twice a lethal dose of toxin, but not exposed to the rays, lived respectively for one hundred and twenty and seventy-six hours after inoculation. Two that were inoculated with five times a lethal dose of toxin which had been subjected to the rays lived respectively forty-five and sixty hours. From the above results it is seen that the guinea-pigs subjected to the rays lived actually a shorter time than the others, and that the toxin through which the rays passed did not lose its lethal properties. All the guinea-pigs showed the ordinary signs of death from diphtheria toxin, the only difference among them being that the hair of those through which the rays had passed could be pulled out with unusual ease. The cultivations of tubercle bacillus all grew in the ordinary manner, so that they were evidently not affected by the rays.—*Lancet*.

ABORTION, NORMAL AND OTHERWISE.—Disputes about the nature of products of gestation discharged otherwise than in normal labor are only too familiar to us. Experts are not always agreed as to the simplest questions pertinent to the subject. Once upon a time, when Parry had directed attention to extra-uterine pregnancy but before the surgeon cared to interfere, a plausible but most suspicious kind of clinical report was occasionally seen in medical serials. Somebody diagnosed tubal gestation, a few

weeks later abortion occurred, and forthwith the case was reported as a tubal pregnancy ending in expulsion of the ovum into the uterus. Quite recently Professor Skutsch, of Jena, a most eminent authority, has reported such a case on his own responsibility. Returning to the earlier reporters, we may note that all their cases were very naturally taken to be errors of diagnosis. Some undoubtedly were mistakes. Soon abdominal surgeons showed that tubal pregnancy is a common disease. In the course of their triumphs it was found that hemorrhage into the peritoneal cavity and expulsion of the ovum from the tube did not always mean rupture of the tubal sac. The ostium of the tube was found wide open; in short, the phenomenon known as "tubal abortion" was discovered. If the ovum could be expelled into the peritoneum, why could it not be expelled into the uterus? The answer is that in tubal abortion the sac lies close to the ostium, which can readily dilate; but a tubal sac seldom develops close to the uterus, and the uterine end of the free part of the tube is very unlikely to become much dilated without bursting. In that event the ovum would go into the peritoneum, not into the uterus. There remains to be considered tubo-uterine or interstitial pregnancy. The sac develops in the portion of the tube which traverses the uterine wall. As a rule—or always, according to most authorities—rupture occurs early in this form. The uterine wall is much thinned, its serous coat ruptures, and the ovum is forced into the peritoneum; dangerous hemorrhage accompanies the accident. But Skutsch maintains that the uterine wall may rupture on the side of the sac which projects into the uterine cavity, so that the ovum is expelled into the cavity and thence out of the vagina as in common abortion. He describes a case where a complete and thick decidua was expelled and afterward the ovum followed; the latter could certainly have never lain inside the decidual cavity. The right cornu of the uterus felt greatly thickened. Skutsch clearly means that there was no suspicion of a bicornute uterus or any allied malformation. He goes so far as to think that "tubo-uterine abortion" is not rare, though tubo-abdominal abortion is far more common. We must at least give the subject grave consideration, since Skutsch is a careful observer. An expelled decidua should always be examined with great care, and the size of any rent in its substance noted and compared with the size of the ovum. The time when the latter was expelled must also be recorded and the amnion carefully inspected.—*British Medical Journal*.

MANIACAL CHOREA IN A MALE.—In the last number of the *Journal of Mental Science* Dr. Thomas P. Cowen relates a case of an interesting and somewhat unusual character. The patient was a man aged twenty-one years, who had shown no symptoms of mental disorder until a fortnight before his admission to the asylum. His natural dull reticence then became more distinct, and at the end of a week a well-marked condition of mental stupor resulted. Four days later he emerged from this condition, becoming

acutely maniacal, shouting and raving incoherently, and presenting the usual tendencies to destructiveness and impulsiveness. On admission to the asylum there was no obvious sign of nervous disease and his bodily organs were found to be healthy. There was no tremor or abnormal movement and the reflexes were present. He could give no coherent account of himself, and he was dirty in his habits. During the first month of his time in the asylum he remained acutely maniacal, but about the end of this time choreiform movements were visible in the hands and in the facial muscles. These became gradually more marked, and as they did so the mental symptoms became less distinct and obtrusive. There was no pyrexia, and no evidence of cardiac disease was discovered. In the course of the next month the spasms became much less marked, but there was a fresh temporary outbreak of the maniacal excitement. This soon disappeared and his general condition rapidly improved, so that in less than four months after his admission he was practically well. No cardiac complication developed during the attack. The writer points out that the interest of the case consists in the occurrence of the condition in a male adolescent (*chorea insaniens* being described as occurring as a rule in women), the precedence of the attack of typical chorea by mania, the absence of pyrexia, and the rapid recovery after the cessation of the movements.—*Lancet*.

EXCISION OF PAROVARIAN CYSTS WITHOUT REMOVAL OF THE OVARY OR TUBE.—Dr. Howard Kelly recently brought this procedure before the Johns Hopkins Medical Society. In the past few years the tendency has been toward more conservative methods in disease of the uterus and appendages. Ovaries are no longer removed for enlarged Graafian follicles, and it is generally recognized that no one should remove a Graafian follicle unless it is so much enlarged as to have become a small ovarian cyst. The follicle is simply excised and the ovary sewn up. Accumulations of pus in tubes or ovaries are treated by vaginal puncture and drainage. The removal of parovarian cysts without tube or ovary is one of the latest procedures in this conservative line. Dr. Kelly's first case was that of a woman on whom he operated in November, 1895. There was one parovarian cyst the size of a hen's egg before the uterus and another behind it which displaced the ovaries from the tubes. He treated the tumors in different ways. In one, after ligaturing the vessels at a little distance from the tumor, he made an incision through the peritoneum, and easily shelled the tumor out of its bed and then sewed up the peritoneum. In the other he excised a portion of redundant peritoneum while the circulation was controlled by the finger of an assistant, turned the tumor out and stitched up the wound with catgut. The uterus, which was retrofired, was suspended by two silk sutures after his method. The patient recovered and is in good health. Dr. Kelly regards the operation as of particular importance to young women and women in the prime of life.

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THE BICYCLE CONTROVERSY.

The question as to whether the effects of cycling be healthful or injurious, either or neither, is still unsettled in the professional mind, and some of the big medical journals are devoting valuable space to the controversy.

Truly "art is long" when a question of one single variety of athletic sport, to which every sound and sane member of civilized society between the ages of five and eighty-five is devoted, gives rise to more controversy than the etiology of a pandemic, and with much less satisfactory results.

The Boston Medical and Surgical Journal, 29th ultimo, thus comments upon a recent editorial in the New York Medical Record:

There is still doubt in some quarters of the value of the bicycle as a means of promoting health. The New York Medical Record for July 17th discusses the matter editorially, apropos of an article on "The Hidden Dangers of Cycling," by Dr. Shadwell, who has previously written on the same subject. His view is a gloomy one, and would tend to consign the bicycle once and for all to disuse, at least so far as women riders are concerned.

No doubt a difference of opinion on the subject is still and always will be justified; but it will require many more statistics than are yet available to persuade either the medical or the general public that the disadvantages

of wheeling outweigh its manifold and evident advantages. Individual cases must certainly be judged on their merits; and common sense here, as in all other matters, must determine the point beyond which riding ceases to be an advantage. That its value is decided in many cases, no one with experience will now deny; that it is an abused form of exercise among some of its devotees every one is willing to admit; but no further generalization seems at present possible.

The writer in the *Medical Record* makes the dogmatic statement that "Any valvular disease should be an absolute bar to cycling, as the heart is the organ principally exercised." This is undoubtedly a very safe position to take. At the same time it is rather amusing to turn to another journal, the *Deutsche Medicinische Wochenschrift*, and find that Dr. Siegfried, of Berlin-Bad Nauheim, reports a number of cases where the bicycle was used as the method of cure; in one patient we find the statement "arteriosclerosis, marked arhythmia cordis;" and in another, "cardiac insufficiency." Of course, Dr. Siegfried makes his patients understand that it is "curgymnastik, aber keinen sport." We ourselves know of a physician who is blessed with a double aortic murmur, and yet does the traveling necessary to a large practice on his wheel, and has done so for several years past.

The *Record* sums up the matter well in the following paragraph:

"The fact that there are dangers connected with cycling can not be denied; these, however, are not hidden ones, but are more or less palpable to every observer. It may be said that there is danger in teaching the practice to the quite young. Properly, cycling should not be carried on to any extent while the body is undergoing development. Any valvular disease should be an absolute bar to cycling, as the heart is the organ principally exercised. Acute inflammation of the genital organs should forbid the use of the machine to women, although the exercise is often beneficial in chronic cases of uterine disease. The question finally resolves itself into one of moderation or excess, and the personal equation in this respect is variable. A healthy man may be able to do one hundred and fifty miles without exerting himself; while another, to all appearances equally healthy, should not do more than forty or fifty. Cyclists are too apt to be carried away by the spirit of emulation, and when they do so with riders of a superior capacity they must expect to suffer. Each cyclist should be a judge of his or her own capacity."

In any case it is certain that, for good or ill, the bicycle has come to stay.

There would seem to be nothing left but an appeal to the great modern Sphinx, statistics. Certainly time enough has elapsed since the beginning of the cycling mania for the collection of a vast array of material for riddle-making, but the medical *Œdipus* who shall make the meaning clear seems not yet to have appeared.

Notes and Queries.

A NEW RESPONSIBILITY FOR THE MEDICAL PROFESSION.—It is now a generally accepted fact that the bicycle as a means of securing necessary exercise has received the indorsement of the medical profession. Not only do the members of the profession recommend it to their patients as a remedial agent, but they have themselves adopted it as a means of recreation and exercise. This fact seems to have appealed powerfully to the laity, and all remonstrances against riding the wheel in cases in which it is contra-indicated are met with the all-satisfying argument that the doctors all recommend it, and the insinuation is that he who does not is behind the times.

In creating and sustaining this universal opinion of approval, the medical profession has assumed to a certain degree the moral responsibility of keeping bicycling within healthful limits. The use of the wheel, instead of affording a pleasurable, beneficial exercise, is rapidly degenerating into what gives promise of becoming, if not promptly checked, a great physical abuse.

Every new time-saving invention adds additional strain to the nervous system. The motorman on the trolley line, or a gripman on the cable-car, does not require the same amount of muscular power as the driver of a horse-car, but the increased speed and the constant alertness in avoiding accidents engendered thereby require a higher order of talent and a more sensitive nervous system. The bicycle is no exception to this rule. While in cases of neurasthenia it acts as one of the best remedial agents, when properly used, in diverting the strain from the nervous system and affording exercise to the muscles, thereby equalizing the circulation and nutrition, when carried to the extreme of a century run or a twenty-mile race, it it brings such a strain upon the nerve-centers as to place the latter in danger of total wreck. The man who comes out victorious in a twenty-yard dash or a twenty-mile bicycle race is not the man of tremendous muscle, but one who has his nervous apparatus so thoroughly trained that in the one case he can throw all his power into an almost momentary effort, and, in the second, can set his motor machinery at a certain pace and hold it there with the regularity of a clock throughout the requisite time. This abnormal strain upon the nervous system is the dangerous element in the use of the bicycle. No one who witnessed the twenty-mile bicycle race at Manhattan Beach on Saturday last could restrain his admiration for the careful training and wonderful nerve of the victor, who was able to maintain a two-minute pace for twenty miles; but to the careful observer there was steadily growing, with every lap of the course, in the expression of

the rider's face, the protruding, glassy eye, the drawn features, the gaping mouth, which indicate an intense strain, and has come to be recognized as the "bicycle face." No organism can endure such overexertion with impunity. A penalty commensurate with the crime must be paid sooner or later. The less fortunate competitor in this race received his warning promptly and retired from the course at the end of the sixth mile with a stitch in his side.

A still greater abuse, because it is indulged in by a great number of people, is the so-called "century run," and the still later innovation of the "double century," which was recently undertaken by forty-six riders from New York, thirty-five of whom accomplished the two hundred miles in twenty-three hours. Against such suicidal feats it becomes the duty of the profession to speak with no uncertain voice.

Professional athletes, whose business it is to develop their muscular and nervous systems for extraordinary feats, are not the proper guides for the great mass of bicycle riders. The latter are composed of professional people and the great class of in-door workers of manifold callings. In them the muscles are soft and flabby, the heart unused to prolonged exercise, and the nervous system already tired from close application. To them, when properly used, the bicycle proves an unalloyed blessing. To exercise it affords appeals to a goodly number of muscles and to all the senses. The mind is diverted by the constantly changing scenes and sights, the delights of comradeship are begotten, and the invigorating sense of the bounding pulse of full animal life and power is experienced. But the exercise should not be carried so far as to interfere with a proper healthful reaction; and this should be free from all sense of exhaustion.—*Medical News*, July 24, 1897.

THE TREATMENT OF ECZEMA.—In *La Medecine Moderne* for February 17, 1897, Besnier writes a long paper upon this subject, in which he points out that it is indispensable in these cases to prescribe a particular diet and a regular method of life, if encouraging results are to be obtained in the treatment of severe cases. Care should also be taken that all internal and external causes for tracheal irritation are removed as far as possible, and the urine should always be carefully examined to see that there is no renal cause for the difficulty, as evidenced by albuminuria, phosphaturia, oxyluria, glycosuria, or polyuria, occurring in the course of such diathetic conditions as lithemia, gout, and diabetes. In regard to the methods of life Besnier points out that the patient should be as much as possible in the open air, must eat regularly of easily digested foods, the proteid constituents of which should be present in comparatively small amounts, and that fresh vegetables are useful, such as the various salads, cresses, and similar substances. Should the eczema be present in the new-born great care should be paid to the regularity of nursing and the clothes, particularly the diapers; and as healthy surroundings as possible should be provided.

Purgatives have been much abused by the physicians of earlier times in the treatment of eczema because they have been given in excessive quantities, but their moderate use, should constipation be present, is an absolute necessity. At first calomel may be given in small doses, or some of the neutral salines or castor oil or the preparations of senna. As diuretics it is well to employ the alkaline mineral waters, and to use to a great extent a milk diet. Belladonna is sometimes useful in cases of eczema in which there is a profuse sero-fibrinous exudate. Under these circumstances two to ten drops of tincture of belladonna may be taken quite frequently, or in its stead small doses of atropine may be given. If there is a contra-indication to these drugs we may employ such remedies as tannin, agaracin, and phosphate of sodium. In persons who have a distinctly malarial history quinine is to be employed both for its specific and general tonic effect, and antipyrin, colchicum, and digitalis may also be used, particularly if there is a gouty tendency or feebleness of the circulation. Strychnine is useful if there is marked circulatory feebleness. In the eczema of the young, which is often dependent upon anemia in lymphatic persons, the administration of iron is often exceedingly advisable; in other cases it is better to give cod-liver oil or the iodide of iron; or in some cases if there is a tendency to arterio-sclerosis we may administer iodide of potassium with good results. If there is hereditary syphilis as an underlying cause of infantile eczema the iodide of potassium in moderate doses may be useful.—*Therapeutic Gazette.*

KOCH'S RINDERPEST INOCULATION METHOD.—Now that Professor Koch's method of inoculation has been practically tested, opportunity is afforded for criticism of its value and for the practical discovery of its disadvantages. It appears that the use of fresh bile has not been without disaster, for some cattle inoculated by Dr. Kohlstock have shown an enormous mortality, over 80 having died out of a fine clean herd of 149 very valuable cattle. In the case of clean herds, generally speaking, fairly good results are obtained, although it is reported that no herd has yet been inoculated with bile in which rinderpest has not followed. The greatest difficulty is the fact that the bile does not keep, and that, according to Dr. Koch, only green biles can be used. But green biles are only obtained rarely, the most frequent proportion being one in seven. As only fifty animals can, on the average, be inoculated from the bile of one animal, it follows that one rinderpest animal is required even under the best conditions to inoculate seven animals. It is reported that Dr. Edington states that the addition of a certain proportion of glycerine to fresh bile succeeds in preserving it without interfering with its immunizing property. The same experimenter finds that the blood of cattle taken during the later stages of the malady, if prevented from coagulation by citrate of potash and then preserved by glycerine, has also very considerable immunizing power, but blood virus, like blood serum, appears to be a little uncertain in its action, and all

samples do not show equal results. If the discovery of Dr. Edington is correct, that glycerine can be used, and that under such circumstances galls other than green are useful, this will probably be found the best method to adopt, provided always that the bile inoculation is followed up by virulent blood during the period that the temporary immunity holds.—*British Medical Journal*.

BIOLOGICAL BASIS OF MENSTRUATION.—J. C. Webster discusses the various theories which have been advanced to explain the meaning of menstruation. He believes that it is not a necessary accompaniment or sequel of ovulation, but that there is some relationship between the processes, as is shown by cessation of menstruation in many cases after removal of the ovaries. He mentions Lawson Tait's statement that removal of the tubes without the ovaries is followed in 95 per cent of cases by the same result. A special nervous mechanism controlling menstruation, as suggested by Johnstone, probably exists, but to Webster it seems possible that it is plexiform rather than limited to a single nerve. The view that menstruation is a process by which the uterine mucosa is prepared to receive the fertilized ovum is rejected by the writer for many reasons, as are also other theories of the relation of menstruation to conception. The suggestion, advanced by Geddes and Thompson, that the menstrual process is related to the balancing of anabolism and katabolism in the female organism, is, however, considered worthy of study and forms the basis of the paper. He says that throughout the animal and vegetable kingdoms the distinctive characteristic of the male sex is katabolism and of the female anabolism, and he points out many reasons for this belief. In the female a surplus is produced in the system after puberty, because the anabolic preponderates over the katabolic. When pregnancy occurs this excess is spent in the nutrition of the ovum during its parasitic intra-uterine life and during lactation. When these methods of using the anabolic surplus are wanting, menstrual losses occur in order that it may be disposed of. The rhythmical character of the menstrual function has probably been gradually determined by the forces of evolution, and its marked variations in the human female (unassociated with pathological conditions) point very strongly to an early period of instability in the process, in which the present variations are probably atavistic reminiscences. Although most concisely stated in the author's article, it is impossible to present his reasons for these views in an abstract.—*American Journal of Obstetrics*.

PHTHISIS IN SOUTH AFRICA.—The Bishop of Cape Town recently stated that five out of six of the consumptives who went out to South Africa died, and added that it could not be too strongly pointed out that though South Africa was excellent for the early stage of the disease, it was fatal in the later. It might be well if the Bishop of Cape Town would cite

the statistics on which he bases his conclusion that five out of six of the consumptives who came there died. It certainly is not the experience of London physicians who send patients to the Cape, for a large proportion of these do well, and many return to England well enough to pursue their avocations, or what is not uncommon, recover their health and settle down to some occupation in the climate which has proved beneficial to them. But there are a number of consumptives who do not consult a physician on the question of climate, but go to the Cape because some friend of theirs, probably one who suffers from the disease in a totally different form, has benefited by the climate. They find out their mistake too late. No medical man of any experience would dream of advising a patient in what is called "the later stage" of tuberculosis, but is really an advanced case, to go out of England, but the restlessness and desperation of patients often carry them beyond these prudent limits.—*British Medical Journal*.

SHE RIDES A CYCLE AT THREE.—Birmingham, Ala., claims to have the youngest cyclist in the United States in the person of a three-year-old girl. She began to ride when she was only two years and five months old, and in a month rode well. The wheel she rides is just fourteen inches high, and was made especially for her. The child's baby sister is to be taught to ride when she is two years of age. Comment is unnecessary.—*Medical News*.

PLAGUE IN HAWAII.—The report comes from Washington that there is danger of the bubonic plague being introduced into Hawaii from Japan, where the disease has been carried from its latest colonial acquisition, Formosa. The United States has been warned that its assistance will be required to prevent the landing of infected Japanese, if their demand for admission to Honolulu is enforced by a display of arms such as has just been threatened, and special instructions have been cabled the American sanitary officers in Japanese ports.—*Medical News*.

DRS. MUNDE AND DA COSTA HONORED.—Dr. Paul F. Mundé, of New York, has received the honorary title of LL. D. from Dartmouth College. The honorary degree of LL. D. has been conferred also by Harvard University upon Dr. J. M. Da Costa, of Philadelphia.

A STATUE TO PIROGOF.—A statue to the eminent surgeon Pirogof will be unveiled at Moscow during the meeting of the International Medical Congress. It is the work of the sculptor, Mr. V. R. Sherwood.

A JOHNS HOPKINS UNIVERSITY APPOINTMENT.—The trustees of the Johns Hopkins University have appointed Dr. John M. T. Finney to be associate professor of surgery.

• Special Notices.

IT QUIETS PAIN AND PROMOTES IT.—Rather a paradoxical statement. True, nevertheless. When pain is useless then antikamnia quiets it; when it is necessary, the same remedy increases it. This refers to the use of antikamnia in the pains of labor and as a promoter of labor pains.

H. C. Reemsnyder, A. M., M. D., of Philadelphia, in a recent article says that whenever there is unnecessary pain in labor he administers ten grains of antikamnia, repeated in two hours if necessary. In this way the pain which annoys the woman without helping her is relieved, while the uterine contractions become more firm and labor is accelerated.

Dr. R. B. McCall, Hamersville, Ohio, contributes an article to the *Woman's Medical Journal* on this same subject. He says: "In cases marked by unusual suffering in second stage, pains of nagging sort, frequent or separated by prolonged intervals, accompanied by nervous rigors and mental forebodings, one or two doses, five grains each, of Antikamnia Tablets, promptly change all this. Indeed in any case of labor small doses are helpful, confirming efforts of nature and shortening duration of process."

A VALUABLE HYPNOTIC IN PNEUMONIA.—The necessity of overcoming the insomnia attending certain cases of pneumonia, ought to be evident to every physician. Probably nothing known to the profession can alleviate the distressing symptom of sleeplessness so satisfactorily and with so few after-effects as Bromidia. By the use of this reliable preparation we can obviate the effects of losing sleep and at the same time feel that the heart's action is unimpaired, a dire calamity in a pneumonic process. *Vermont Med. Monthly, Feb'y, 1897.*

W. A. WARD, M. D., New Edinburgh, Ark., says: I have used Aletris Cordial in threatened miscarriage in several instances with the best results; one case in particular, the lady was of nervous temperament and very easily excited, but, by giving Celserina combined with Aletris Cordial for a short time, she passed over it safely. I am of the opinion that any physician prescribing Aletris Cordial in such cases as it is indicated will not be disappointed in the result.

NOTWITHSTANDING the large number of Hypophosphites on the market, it is quite difficult to obtain a uniform and reliable syrup. "Robinson's is a highly elegant preparation, and possesses an advantage over some others in that it holds the various salts, including iron, quinine, strychnine, etc., in perfect solution, and is not liable to the formation of fungous growths.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ANTHROPOLOGY, OR THE STORY OF MAN.*

BY T. B. GREENLEY, M. D.

[CONTINUED FROM PAGE 89.]

Many circumstances might be referred to in the way of proof of the unity of our race: The symbol of the "Crux Ansata," the Mystical "Tau," the hidden wisdom at once of the Egyptians, the Chaldeans, the Phœnicians, the Mexicans, Peruvians, and of any other ancient people. "We find this mystic sign," says a writer in the Edinburgh Review, "alike in ancient cities of Central America and on the breast of the Egyptian mummies; alike on the Babylonian cylinders and in the hands of Brahma, Vishnu, Siva; on the battle-axe of Thor and on the pagodas of China, among the sect of Haca Japonicas in Japan, and the Knights of St. John in Malta; on the scepter of the Bompa deities of Thibet, and on the sculpture stones of Scotland; on the ancient coins of Gaul and cinerary urns of Northern Italy; in Persia, in Britain, and in Kamschatka. It was emblematical of creative energy, of immortality, of rejuvenescence, of the resurrection, of the Divine Unity. We see it on cross cakes of Egypt, which symbolize the supreme content of the better land."

Then, again, all nations have a legend of the deluge. If only one people possessed such a tradition, little would be thought of it. But when the Greek and Fiji Islander entertain the same legend it astonishes us.

* Fourth annual lecture pertaining to Man, read publicly at Elizabethtown under the auspices of the Hardin County Medical Society.

"How is it Ovid and Berossus both carry us up to the deluge as the beginning of human history? How is it that Phrygians and the Cherokee Indians have the same recollection of the past," that the inhabitants of Mexico and the Persians and the Hindoos and the Chinese all speak the same story? Did many races thousands of miles apart in different ages dream the same dream?

Ovid, Apollodorus, and Lucian ascribe it to the wickedness of the antediluvian world. So does also the Persian tradition. "The world having been corrupted by Ahriman, it was necessary to bring over it a universal flood of water that all impurity might be washed away." The Jesuit Martinius says the Chinese compute the flood to have taken place four thousand years before the Christian era. Their account represents that Fuhhe, the founder of the Chinese civilization, escaped with his wife, his three daughters, and his three sons from the waters of the deluge. Humbolt informs us that the Aztecs, the Zapotecs, Hascaltecs, and Machoacans in Mexico had paintings of the deluge. The Noah, Xisuthrus, or Manu of these nations is termed Cox-Cox, Teocipactli, and Tezpi. He saved himself with his wife, Hochiquetzatl, on a raft.

The mountain of Colhuacan in this tradition represents Ararat. The dove is also seen. The Machoacan tradition speaks of Cox-Cox or Tezpi and his wife and his children and several animals. When the Great Spirit ordered the waters to withdraw Tezpi sent out from his bark a vulture, and subsequently a humming-bird, which returned, holding in its mouth a branch. Many more people having the same tradition might be quoted.

Another evidence of the unity of the race might be mentioned, that is the general belief in and worship of some kind of deity, together with a belief in immortality. Although it is apparently a puzzling matter to account for the great variety of the species, the differences can be satisfactorily determined mainly by their various environments or surroundings in life. The greatest difference and perhaps the hardest to account for is that existing between the white and black races. No doubt the principal differences have been effected by climatic influences.

We notice, even in Europe, quite a difference in physique as well as color between the Northerner and the Southerner. The Norwegian, for instance, has blue eyes, light hair, and very fair skin, while the Spaniard and Portuguese have black hair, dark eyes, and dark skin.

On the low lands of Portugal, where the atmosphere is quite surcharged with moisture, accompanied with great heat, the inhabitants are much darker than on higher lands where it is drier.

If you go to Egypt, you will find the people still darker than in Southern Europe. And the further down in Africa you go, until you cross the equator some distance, the darker you will find the natives. The real black man, with kinky hair, is found in West Africa within the tropics between the Senegal and Gaboon rivers. This is the native land of the progenitors of our colored population. This section of country extends from the coast to Soudan in the center and the lower parts of the upper Nile. This is comparatively a small section of Africa, and comprises that portion of low lands at the mouths of rivers where it is intensely hot, and during the rainy seasons very wet and marshy. It is here where malaria is generated to such an extent that it is impossible for Europeans to exist. It is here where the great heat and moisture exert their influence in changing the color of the skin. As we go down the continent from the tropics we find the color of the natives to become lighter. The Hottentots are of a brown color, being much lighter than the negro. This is also the case with the Kaffirs and other tribes.

The population of Africa, although divided up into many tribes, are presumed by the best ethnologists to have originated from the Atlantidæ or Ethiopic race, these being of Hamitic origin. But no doubt that the northern part of the continent was settled by mixed races, such as Phœnicians, Jews, etc.

Some anthropologists have entertained the view that owing to the ignorance of the ancients in navigation and geography, that there must have been a separate origin of man on the American continent from that in Asia. This view of the origin of the American tribes was due to the great difficulties they saw in the way of migrating to this continent. But to say nothing of what may have been the condition of the earth's surface, geologically speaking, in prehistoric times, we can now readily surmise the manner in which migration, both from Europe and Asia, could have, and no doubt did take place. Diodorus Siculus, a Greek historian, who wrote in the time of Julius Cæsar, speaks of the discovery of South America by the Phœnicians, who started across the Atlantic from the coast of Africa. The country was described in the most glowing terms. The Portuguese, also, by accident discovered Brazil in 1500 A. D. Their ship was carried across the Atlantic by adverse winds.

As to the settlement of the northwest of America, it is very easy to presume how the northeastern inhabitants of Europe found their way across Behring Straits in the winter on ice, or in the summer by boats, it being but a short distance. As to the discovery of the northeast section of this continent, we have fairly authentic accounts of the expeditions of the Norse men of ancient times.

Mr. Lewis H. Morgan, ethnologist, claims that there exists a unity of the races of the Indians of America. He maintains that the structure of their society, the tribal organizations, and more especially their form of government by chiefs and councils, the same social structure and the same forms prevailing as well among the village Indians as among the roving tribes, prove unity. He also regards the resemblance in their cranial characteristics. But it is not denied that the state of civilization, as found by the Spaniards at the time of subjugation by Cortez and Pizarro, had been brought about by immigrants of a more civilized race. From the great similarity of the buildings, pictures, etc., found by the conquerors to those among the Japanese and Chinese, the inference is very strong that the inhabitants of Mexico and Peru had been materially assisted in the development of their state of advancement. It is also noticed that a great similarity existed between the Peruvians and Chinese in their celebrations.

The annual festival of patronage to agriculture on the part of the Incas was similar to that practiced by the Chinese, in which the emperor proceeds to the field with great pomp, and takes part in cultivating the ground with his own hands. The use of manures and drainage were similar in both countries.

There is probably but little doubt that the American Indians were originally of Mongolian origin, and that after many years duration they were assisted by new immigrants from Eastern Asia, as before remarked, in the development of their civilization. Especially was this so in Mexico and Peru. The Esquimaux are regarded as being of a later immigration.

The question of man's mental condition at the time of his appearance on the earth has been a matter of discussion between Biblical scholars and scientists of the evolution class; the former maintaining that he was civilized, and the latter that he was a savage. A very plain proposition in this regard might be stated, to wit: If man is the descendant of the gorilla, he was originally a savage; but, on the other hand, if he was a creation of the Deity, then the inference is he was

civilized. If we take the former position, there are many obstacles and stumbling-blocks in the way.

In the first place we have to account for his mental condition over that of the brutal gorilla. This is one of the objections that evolutionists have never been able to master, for common sense informs us that the gorilla could not impart something to his descendants he did not himself possess. It is well known that the gorilla is one of the most homely, savage, and ignorant of the brute creation. He possesses much less mentality than many of the inferior animals far below him in physical organization. But it is claimed that on account of man's larger brain and more highly organized condition and his long existence on the earth, that he gradually civilized himself. But it might be asked why has not the gorilla improved himself mentally, as he is supposed to have lived on the earth a far longer time than man. This is a reasonable question, when it is known that his brain is nearly similar in structure to that of man. But we find the animal just as savage to-day as he was at the time they claim he evolved man a million years ago. Had it been possible for the gorilla to have evolved man as to his physical condition there would have been an estoppel to the process when his mental powers are considered.

The evolutionists do not claim any thing more in this particular than mere instinct. If we admit his evolution under the circumstances, then we have to account for man's state of civilization independent of his hereditary acquirements from his ancestry. Nor can natural selection or environment in this case assist the evolutionists, as they only claim for these aids in development their effects in physical changes. Therefore it would seem that man, when he first appeared on the earth was as ignorant, mentally speaking, as his progenitors. Then the question arises, how did he become civilized; some contend that he civilized himself, but there is no analogy that would bear out such an argument. It is well known that if an infant is placed where it has no tutorage it would grow up in ignorance, if placed among savages it would grow up to be a savage, or if placed where it could hear no language it would never talk. Then the inference is very plain that a savage can not civilize himself. Then, if it was impossible that he could civilize himself, it was impossible that he could have been the offspring of the gorilla. What do these facts teach us? Why, that man was originally a civilized being, and consequently a product of the Deity.

According to geologists, as well as Biblical history, the world and all its accompaniments, animal, vegetable, and mineral, were gradually developed from the lowest to the highest, until every thing was ready for the reception of man, the last and greatest of creation, who was to be master over all. Some portions of the earth were ready for his handiwork in agriculture; various kinds of fruit were ready to his hand; the forests contained animals adapted to his food; the waters of the earth were plentifully supplied with fish; the fields and gardens bloomed with plants and flowers for his gratification and fancy. The seasons were properly arranged for seed time and harvest, and day and night set apart for time to work and rest. Now, with all these and many more pre-arrangements for the existence of man on the earth by the Deity, it would appear strange and unreasonable that such great and admirable preparations should have been made for the reception of an ignorant, savage man.

Therefore, under all the circumstances of the case, we must conclude, as before remarked, that man was originally a civilized being, and that he was the product of the handiwork of the Creator.

The earliest history of mankind extant teaches us that in several countries he was enjoying quite a high state of civilization. I allude to the Persians, Egyptians, Babylonians, Chaldeans, Greeks, etc.

If the existing monuments of antiquity are evidence of the early civilization of man, we must conclude that Egypt and Babylonia stand among the most advanced nations of early times. It is impossible to determine the exact period in our history when such monuments were erected. Nebuchadnezzar built the hanging gardens of Babylon about 400 years before Christ; and some other magnificent ruins are of comparatively modern origin. In contemplating the magnitude and structure of some of these ruins we are impressed with the fact of great capacity and genius possessed by the authors of their workmanship. It is a puzzle to mechanics of our time how the great stone columns of Baalbec were transported from the quarries and erected *in situ* as now found in the ruins of that ancient city. The mystery also attaches itself to the construction of the Pyramids and other structures of ancient times.

Some will say that it required many thousands of years for the acquisition of so much knowledge. This idea might be offset by the well-known rapid advance in discoveries and inventions in our own time. There are many persons now living who can recollect the time of the first railroads and telegraph lines.

The great discoveries in the use of electricity are of but a few years' duration, and the propulsion of boats by steam, discovered by Fulton and Fitch, is only a little over a hundred years old. A great many things might be mentioned illustrating the rapid development and advance of civilization within recent times, but those indicated will suffice for our present purpose.

We will now say a few words respecting ancient civilization.

Greece can be referred to as one of the most civilized countries of ancient times. Her history is rather mythical previous to the eighth century before Christ. Her heroic age may be said to have existed about the time of the Trojan war, which, according to best authority, was about the twelfth century before Christ. But a high state of civilization began to manifest itself about seven hundred years before our era; and from that time for several centuries Greece excelled all other countries in literature and the arts and sciences. She arrived at her greatest eminence in fame and glory about the time of Demosthenes and Socrates, about the fourth century before our era.

Rome was settled seven hundred years before the Christian era, and was at her zenith of glory and power before the commencement of our era. Her great emperor, Augustus, was born about sixty years before, under whose reign Rome was the mistress of the world. She was not only great as a conqueror, but encouraged learning and the culture of the arts. All this great power and high state of civilization were the outgrowth of a small colony, settled some six hundred years before.

Then we might cite the celebrated little country of Phœnicia, which from a small colony soon spread out with her various settlements, and became the most renowned in the world for her commerce and navigation enterprise. She was also celebrated for her magnificence in architecture and learning. Her ships penetrated seas hitherto unknown and made discoveries, her navigators being the first who passed through the Straits of Gibraltar.

We can also point to the Arabs, who about the tenth century of our era, were celebrated for their attainments in philosophy and medical science. These people, however, like many others, soon sank into a state of inferiority. We might allude to other nations of people who have attained a high degree of civilization and relapsed into a state of mediocrity.

The great antiquity of man is regarded as being essential to account for the increase of population as well as the advancement in the various

branches of knowledge. But, as before remarked, we must take into consideration the great difference in the longevity of the people in ancient times from what it is now. In consequence of which population increased much more rapidly in a given length of time. Within the historic period we might, by way of illustrating this point, allude to the family of Jacob in the land of Egypt. In about two hundred and fifteen years, from the time of entrance to the time of the exodus under Moses, they numbered over three million souls. It might be said that notwithstanding this great increase in comparatively such a short time their condition was, being in a severed state of bondage, not the most favorable for reproduction.

We might also cite even a more modern instance of rapid increase of population and civilization. I allude to Rome. She was settled by a small colony seven hundred years before the commencement of our era, and in six hundred years became so great in numbers and power as to be able to conquer the world. As before remarked, when speaking of this people, they were not only great numerically and in arms, but also attained a high state of civilization.

The question of civilization as it respects our first progenitors should be a matter of easy solution, when, as before stated, they could not have civilized themselves. The argument that we now have barbarous peoples on the earth amounts to but little in the way of proving our original condition. It requires but little knowledge of history to enable us to point out many peoples who once enjoyed a high state of culture, who are now almost barbarians. It is a well-known axiom that it is much easier to descend than to ascend a graded highway; in other words, it is more easy to become ignorant and remain so than it is to acquire knowledge.

Some of the most learned and renowned people of ancient times are now either extinct or have relapsed into a state of ignorance. In some instances this condition was the result of conquest by savage tribes and in others of indolence and mere decay of mental energy. If we take a retrospective view of the world a few centuries back, we perceive evidence of this fact on a large scale. During the period termed the "Dark Ages" the world almost became shrouded behind a veil of ignorance and superstition. Militarism and savagery almost took the place of learning and advanced civilization and held sway until the sixteenth century, when the veil of ignorance began to disappear.

In calculating the time in which all the works of man have been accomplished, we must not confine ourselves to the time of the flood, but go back one thousand five hundred years before. A great deal in the way of arts and learning had been acquired by the antediluvians, and of course Noah and his sons were familiar with this knowledge. Noah himself was an architect, and his immediate descendants no doubt were versed in the knowledge of their predecessors. Noah lived three hundred and fifty years after the flood, sufficiently long to see a numerous progeny spread themselves over the country. He, being the great grandfather of Nimrod, no doubt was still alive at the time of the building of Babel and the confusion of tongues.

On the hypothesis of Noah and his immediate descendents being versed in the knowledge of the art of architecture, husbandry, etc., we can readily conceive of the advanced condition of civilization in which we find the various nations at the opening of reliable ancient history.

We must not suppose that the antediluvians existed in a state of ignorance and barbarianism from the time of Adam until the deluge, a period of one thousand five hundred years. Adam himself was a tiller of the ground, as well as his son Cain; while Abel was a shepherd; these being his two first born, no doubt others of his progeny were versed in other branches of knowledge.

Owing to the great longevity of man in that period of the history of our race there must have been a very large population extant at the time of the flood. And taking into consideration the great disposition of man to emigrate, no doubt they spread over large areas of country, perhaps as far as the present states of Western Europe. And there is but little doubt the ancient evidences of the presence of man during what is termed the paleolithic, or rough stone age, in those countries were of antediluvian origin. This view of the matter would account for the great depth at which some of such evidences are found, due to the action of much water.

There is nothing wonderful in such a presumption when we see in our day how rapidly distant countries become populated. And we know from our earliest history that one of the greatest inclinations of the race is to wander and hunt for new places of abode. This disposition existed, even with our first parents, as we have evidence in the fact that Cain found a wife among the nomads at the east of Eden.

It seems to be somewhat of a mystery with many that any people existed in what is termed the Land of Nod. The term "Nod" signi-

fies nomad, or wandering, and no doubt they were relatives of Cain who had wandered off from home to look out for themselves a residence at the east of Eden. Cain was one hundred and thirty years old when he killed his brother Abel, and no doubt the progeny of his parents at that time amounted to many souls.

To judge from the history of the human race, the inference seems to be plain, as before remarked, that our first parents were civilized. The time in the world's history at which man was created is strongly expressive of the importance of his character. It has been pertinently remarked concerning the Divine Providence in the creation of the world, that what was first in intention was last in execution. Man, for whom all other things were made, was himself made last of all.

In the Mosaic narrative, the only rational account that was ever given of the origin of things, we are taught to follow the heavenly artist, step by step, first in the production of the inanimate elements, next the vegetables, and then of animal life, till we come to the masterpiece of the creation, man, endowed with intellect and reason. The house being built, its inhabitant appeared. The feast being set forth, the guest was introduced; the theater being decorated and lighted up, the spectator was admitted to behold the splendid and magnificent scenery of the heavens above and the earth beneath, to view the bodies around him moving in perfect order and harmony, and every creature performing the part allotted it in the universal drama; that seeing he might understand, and understanding adore its Supreme Author and Director.

"Say first, of God above, or man below,
What can we reason, but from what we know?
Of man, what see we but his station here,
From which to reason, or to which refer?
Through worlds unnumbered though the God be known,
'Tis ours to trace him only in our own.
He who through vast immensity can pierce,
See worlds on worlds compose one universe,
Observe how system into system runs,
What other planets circle other suns,
What varied being peoples every star,
May tell why heaven has made us as we are."

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MEADOW LAWN, KY.

REPORT OF TWO CASES OF SUPPURATIVE INFLAMMATION OF THE ANTRUM OF HIGHMORE.

BY M. F. COOMES, A. M., M. D.

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The first of these cases occurred in Mrs. X, aged thirty-five years. This woman was a stout, healthy woman in every particular, her teeth being in a perfect state of preservation, so far as all external appearances indicated. The attack was ushered in gradually, making its appearance as an ordinary faceache, involving the eye on that side, causing it to weep and pain, also producing general pain and soreness in the upper teeth on that side. This continued for a week or so, notwithstanding that opiates and hot fomentations were freely used. Her teeth were examined by a competent dentist, and nothing wrong could be ascertained. Illumination of the antrum at the beginning of the attack was negative. Toward the latter part of the week there was some cloudiness, the light being less clear on that side than on the opposite side. At this time there was a perceptible unpleasant odor from the nose. The second molar tooth was removed and an opening made into the antrum by use of the dental engine. The cavity of the antrum was washed out with peroxide of hydrogen, with the result of removing from it a quantity of foul pus. Irrigation from day to day by means of a fountain syringe with solution of permanganate of potash, which was usually preceded by the injection of a small amount—say two drams of a fifty-per-cent solution of peroxide of hydrogen, and followed by an equal amount of solution of Merck's methyl blue of the strength of two or three grains to the ounce of water. This routine treatment was

persisted in for more than two months, at the end of which time the pus had ceased to form, and there was little if any secretion from the cavity of the antrum. Seven or eight days after the antrum had been opened there was some difficulty in getting fluids to pass through the hole that had been made by the drill. She called upon a dentist, who freed the opening and injected the antrum, but as no fluid flowed out into the nose he concluded that there was no passage way from the antrum into the nose, and stated to the woman that such was the condition.

She had gone to him in my absence, and knowing that the fluid had formerly flowed through the nose, she was very much agitated over the matter, fearing that there might be a growth in the antrum blockading the way between that cavity and the nose. When she called upon me I assured her that I had seen other cases behave in a manner similar to hers, and in those cases there was no tumor and the patients had made good recoveries; that the opening between the nose and the antrum had remained free; and I believed there was no tumor in her antrum, and in a few days the opening would become free and recovery finally be established.

The point of importance in the case is, what produced the closure of the passage way between the antrum and the nose in the absence of a tumor, because there was certainly no tumor in this case or in the others with which I had a similar experience. There are at least two ways by which this avenue could be blocked: First and most likely, the passage was occluded by debris formed in the antrum; it frequently happens that pus and the other secretions assume a semi-solid form and accumulate in masses which would be too large to float out through the opening between the antrum and the nose. I very well remember one occasion, when I injected peroxide of hydrogen into an antrum, that it did not escape through the nose, and for some reason or other did not readily find its way out of the opening leading into the mouth, that the pain was most intense, and the patient got relief only when I introduced a probe through the opening into which I had injected the fluid which permitted the gaseous contents of the antrum to escape back into the mouth. I am satisfied that on this occasion there was either an accumulation, as mentioned above, that had floated into the passage way between the nose and the antrum, or that the opening had been closed by a blood clot. I had seen this happen in another case.

In this latter case the opening leading up into the antrum from the

mouth had quite a quantity of exuberant granulations along the line of its track. Of course this tissue was prone to bleed, and on one occasion the hemorrhage was sufficient to fill the entire antrum and produce considerable pain by distension. The antrum being in free communication of the atmospheric air, the blood readily became coagulated, and when the cavity was full the hemorrhage ceased but the pain persisted. I passed the probe up into the antrum and broke up the clot. There was slight hemorrhage into the mouth following this procedure, but the pain was relieved. On the following morning the antrum was washed out with a warm solution of common salt and permanganate of potash. There was no flow over into the nose, but the fluid drained back into the mouth. This washing process was repeated the second day with similar results. The third day passage between the nose and the antrum was perfectly free, and this blockading did not occur again during the progress of the case.

LOUISVILLE.

RUPTURE OF THE INTESTINE FROM BICYCLE ACCIDENT: OPERATION; DEATH.

BY JAMES B. BULLITT, M. D.

Miss M. S., a robust young woman of about thirty-five years, while riding a tandem bicycle, on the evening of June 6th, collided with a horse attached to a vehicle. She was thrown violently to the street, receiving a contusion of the left eye, and another of the abdominal wall to the left of and below the umbilicus. This was produced either by the shaft of the vehicle or by the handle of the bicycle. There were no unusual symptoms which led to a diagnosis by the attending physician of any thing more than a severe contusion of the abdominal wall, until the morning of July 8th. At this time the swelling at the site of the abdominal contusion began suddenly to extend to the left and upward; the temperature at this time was 103° F. It seemed probable that a subcutaneous blood clot was undergoing a suppurative change, demanding surgical interference.

I was asked to see the case by Dr. S. B. Mills on the afternoon of July 8th. At this time the skin over the site of contusion was black and blue, and an area as large as the palm of the hand was markedly swollen, the skin tense. Tenderness was so great as not to permit of

satisfactory palpation. There was a serpiginous line extending backward at the level of the crest of the ilium to the postero-lateral aspect of the body, then upward to within an inch and a half of the axilla, then forward and downward again to the contused area. The area inclosed by this line was slightly elevated above the level of the surrounding skin, and was reddened and hot to the touch. Evidently this was a phlegmonous inflammation which had rapidly extended from the area of contusion. Dr. Mills anesthetized the patient and I proposed to freely incise, turn out any clots present, and drain. As the knife was drawn across the contused area to the left of and below the umbilicus, there was a sound as though of drawing across a drum-head. On incising the skin there was an escape of gas bearing an unmistakably fecal odor. There was evidently a rupture of the intestine. Gauze was immediately packed over the incision, the patient was removed to the Norton Infirmary, where, with the assistance of Dr. Dugan and Dr. Mills, further exploration was made. A hole about the size of a dollar had been torn through the muscular abdominal wall, just external to the rectus muscle, though the skin was not broken. Through this a knuckle of intestine and part of the great omentum had escaped; these were lying just beneath the skin, bathed in fecal pus and covered with lymph; a perforation as large as the thumb-nail was found in the knuckle of intestine, which proved to be the transverse colon. After profuse irrigation the rent in the bowel was closed, some tags and a portion of the great omentum tied off, the overlying and rapidly becoming gangrenous skin cut away, and the gangrenous area, probably eight inches long by four inches wide, freely incised and exposed. After curetting and washing this area was touched with a solution of bichloride 1-500, again washed, and then the omental stump and knuckle of bowel returned to the abdominal cavity. The cavity appeared clean and uninfected; the omentum and intestine had plugged the tear in the wall so completely as to prevent the entrance of any infectious material into the cavity. Therefore no irrigation of the peritoneal cavity was practiced; a strip of gauze was simply packed around the replaced knuckle of the intestine and omental stump. To insure complete drainage of the infected areas of cellular tissue a pair of forceps carrying a strip of iodoform gauze was thrust through the cellular tissue from the left angle of the incision and brought out on the lateral aspect of the body, where a free counter-opening was made. No effort was made to close the incisions; every thing was left wide

open and packed with iodoform gauze. The patient came off the table with a pulse of 126. It seems probable that the bowel was bruised at the time of the accident, but that the rupture did not occur until later, probably on the morning of July 8th, when the rapid infiltration toward the axilla began.

During the night she was very restless and uneasy; in the morning the pulse began to climb, and by 10 o'clock could scarcely be counted or felt; in the early morning the external packing was changed, drainage had been free, and the incised areas looked well. Death occurred at about 11 A. M., fifteen hours after the operation and about sixty-three hours after the reception of the injury. There had been no vomiting, and only a few efforts at vomiting; there had been an apparent difficulty in respiration, coupled with the complaint that she could not get her breath. At the same time there seemed to be no abdominal distension.

Post-mortem examination showed absolutely no signs of peritoneal involvement. There was no distension of the intestines with gas, and no free serous or purulent fluid. The ruptured and sutured intestine was safely and firmly united. The infected subcutaneous areas had drained well, and were already almost sweet. Death was due, then, to toxic material absorbed from a large area, chiefly before the time of operation. Such cases, in which the patient dies although the operation was successful, will continue to make surgeons regretful and sad until the happy day when we shall learn what are all the factors which contribute to such malignant toxicity, and, further, what are the means of successfully combating it.

LOUISVILLE.

POISONING BY TRIONAL.—A case is reported in *L'Abeille Medicale* of February 13, 1897, in which a man suffering from morphinomania, and who was accustomed to employ morphine daily, received habitually twenty grains of trional every night during a period of two months, or, to speak more exactly, twenty-one drams in twenty-six days. After one month the patient found it difficult to rise and was in a condition of continuous hebetude. He could with difficulty support himself, and the movements of his upper and lower extremities were exceedingly ataxic. There was tremor of the tongue, the feet, the hands, and the muscles of the face. The walk was slow and labored. In attempting to speak the syllables were transposed, or on attempting to write they were so disordered as to make the spelling very incorrect. There was profound psychic depression and general intellectual feebleness, with involuntary passage of urine.

Translations.

THE VALUE OF THE CHROME-WATER TREATMENT IN A CASE OF SYPHILIS MALIGNA.*

BY DR. J. EDMUND GUENTZ, DRESDEN.

In former treatises published by me several cases with grave forms of syphilis were described, which were successfully and permanently cured by carbonic chrome-water. Recently I have treated a patient committed by Dr. Günther, Jauer, to my care. He was a strong man, attacked eight years ago by syphilis, and for a year had suffered from intense syphilitic headache in the forehead. The region of the root of the nose was sensitive to touch, the pain radiating toward the interior parts of the head. At the same time giddiness was present. When the patient had been under the chrome-water treatment for a month all the manifestations had disappeared, and he could follow his business again with energy, feeling perfectly well. The headache disappeared during this treatment, and I could adduce further numerous examples to prove the same successful results.

Last year I saw in consultation at Freiberg a patient who had been seized with a rapidly growing perforation of the hard palate, larger than a pea, and accompanied by fever and headache. After using the chrome-water for a fortnight the headache was cured, and not only did a cessation take place, but, through the incidentally favorable mechanism of the ulcerous soft parts lying opposite each other, a complete closing of the perforated spot was obtained.

The following case, marked hitherto by great difficulty and malignity, but influenced to a remarkable extent by the use of the chrome-water, is designated in the routine as syphilis maligna with galloping course.

The patient, a man twenty-five years of age, formerly strong and healthy, had been attacked with syphilis about five and a half months before. Although being treated with various preparations of mercury by doctors abroad, and undergoing a three months' Schroth bread-cure, the spots, infiltrations, impetigo, ulcers, rupia, and an isolated blistered

* Read at the Third International Congress of Dermatology, in London, 1896.

eruption had augmented. The patient, "given up" as he was, had left the Schroth Institute and entered my private clinic. My treatment of the patient, whom I had placed under suitable superintendence, commenced on the 31st of January, 1885. He was apathetic, and in regard to his nutrition presented a picture like that of an extremely reduced, frail patient suffering from typhus; in his pitiable condition he could only move his arms a little, and had to be carried on a stretcher. His knees were genuflexed and drawn up, and at that time could not be fully stretched out. No fever. Urine scanty, dark, with copious urates, without albumin or sugar; stool laborious, only once a week. His skin was covered with over a hundred ulcerous spots, from the size of a bean to that of a crown-piece; some of them were dry, most of them were covered with suppurated crusts, others open, with infiltrated edges; others were large, deep, black-crusted rupia ulcers. His face was disfigured with large ulcers on the forehead, eyelids, nose, cheeks, mouth, and by numerous protuberances half the size of a cherry. The left cartilage of the nose was severed, eaten through, so to speak, from the base to the cavity; bad smell from the nose. On the hairy parts of the head were several large ulcers to be seen of the size of a farthing, one of which had attacked the skull bones. The largest rupia ulcer was the size of a crown-piece, and, not without danger to the foot, had seized the inner side of the under part of the tibia, at the point where the large blood-vessels and the nerve meet on the surface. Pain, hindering of movements, inclination to bleeding of the surface of the ulcer. On lightly denuding the edge, there came from under the firm crust dark red-brown, smeary pus out of the large ulcerous mass. On the corresponding part of the other foot there was a newly developed ulcerous vesicle with infiltrated edge and inclination to increase, about the size of a farthing. Heart rather under normal. No perceptible abnormality in the remaining organs. On the penis still sclerosis; on the back of the same swelling of the gland-cord; for the rest, the glands were not conspicuously swollen.

Treatment and Course of the Disease. A warm bath daily, a bottle of Aqua Chromica daily, like that to be had by O. Lische in Plauen-Dresden, Chemist and Mineral-water Manufacturer, prepared according to my directions, to be had on doctors' prescription for their patients. A number of the ulcers were sprinkled with iodoform powder and dressed only with caoutchouc paper after my own directions; the remaining ulcers were left uncovered for control without local

treatment. After a day the ulcerous spots showed unmistakable inclination to dryness. In three days the largest ulcer on the scalp was cicatrized. In a fortnight nearly all the ulcers were rapidly healed, partly smooth, partly with light excoriation, partly with weak infiltration, partly with infiltration and excoriation. On the three largest ulcers there were still excoriations in healing to be seen, the protuberances in the face and the induration on penis had decreased about one third in size. The further retrograde movement is now of a uniform character. The red protuberances in the face have reached the height of their excoriation; after analogy with the initial sclerosis a depression is formed in the middle to the level of the skin; the wall now projecting is reabsorbed in the most favorable parts proportionally rapidly without conspicuous excoriation. The cartilage of the nose, without local treatment, has promptly healed without distortion. No odor now from the nose. The patient in a fortnight has drunk sixteen bottles of Aqua Chromica containing 0.03 kalij bichromicum, and can stand up and walk slowly, led by two persons, and is sound in health.

Up to the seventeenth day of the cure twenty-one bottles were used, and up to the twenty-first, twenty-seven bottles. The pulse is easily excited to one hundred beats a minute. Appetite always present. Apathetic condition disappeared; inclination to mental occupation. All remaining functions in order. A little headache after letter-writing and mental occupation. No fever. No Aqua Chromica for a few days. The patient took his first excursion to-day. The pulse from time to time, but with a certain regularity, was rather slower. Heart as usual, rather under normal. Excursions almost daily up to the twenty-seventh day of the cure. Infiltrate present gradually improving. The chrome-water treatment was recommenced on the twenty-eighth day. Patient when led could walk a few steps. Strength considerably increased.

Up to the 10th of March, that is, up to the thirty-eighth day, thirty-seven bottles of chrome-water had been used. Medication stopped this day. Pulse 92-100 beats a minute, at times slower; no fever. No disturbance of the heart whatever. Headache. Tapping the head caused no pain. Appetite good. Lips and accessible mucous membrane very anemic. Great reflex sensitiveness of the extremities on trying massage (syphilitic reflex). Patient begged cessation of the same on account of the highly unpleasant feeling of ticklishness. On firmly trying to continue the same the patient's leg shrunk together as if

touched by electricity. Nutrition up to now gradually better. All the functions of the body in order. The ulcer still present on the calf healed to the size of a half-nail; healing process progressive. The large crust of the largest rupia ulcer on the inner side of the foot-joint loosened, the newly formed skin under dry, smooth; there had been no local treatment of this part. On the upper part of both arms there is an old ulcer spot on each, cicatrized with infiltration, again in suppuration and forming crust (rupia). On easing the scab, however, there was no loss of substance of the skin as by the genuine rupia, but a granulated spot with tendency to cicatrization. The healing influence of the chrome preparation was clearly shown. Although on the mentioned spots, it is true, rupia crusts, like an oyster shell and colored, are forming, still they have not the complete character of rupia, but are already retrograding, namely, no further loss of skin substance, but a tendency to healing. The physiognomy of this local developing process from the commencement already showed clearly rupia in a state of healing. The process was left alone without any assisting local treatment; according to my experience it would probably have taken a more unfavorable turn if it had been treated with carbolic acid or other similar dressings; it would have healed rapidly if it had been sprinkled with iodoform powder.

In order to demonstrate the healing influence of the chrome-water these spots were only in so far locally treated that the scabs were considered as a natural cover, and only eased daily to let the superfluous pus have the necessary outlet.

Several infiltrations in the face had until now quite retrograded, some leaving back raised red spots with the look of the remains of simple acne, others slightly fluctuating (changing to a gelatine nature); a similar spot is on one of the wrists, where a skin-gumma has been transformed in the same way. Below the underlip there is still a raised spot as large as a bean, wart-like and fissured, which up to now has slowly receded.

March 14th. Last evening and during the night, headache; pulse 92; temperature normal. Chrome-water suspended. Kalii bromide. Headache disappeared early this morning.

March 15th. To-day the ulcer on the lower part of the thigh healed completely, smooth cicatrization. Crust on calf fallen off; there remaining only a dry crust as large as a lentil, seemingly also on the point of falling off. Likewise the crusts on the upper parts of the

arms without local treatment. Aqua Chromica suspended again. Patient, being led, could walk as far as the steps, and in the afternoon was able to play cards for several hours without fatigue.

March 16th. Excursion. Being led, was able to walk down the steps. Tormenting headache during the night.

March 17th. Headache again in the afternoon; pulse 120; temperature not raised. Strength and nutrition much better in the last few days. In the evening, pulse 96. Kalii iodidi, 8.0-200.0, a table-spoonful to be taken in the morning and in the evening. In the course of the afternoon the assistant physician had given the patient 5.0 grams hydrate of chloral, and applied cold bandages to the head. I countermanded this medication, as the headache still remained.

March 18th. Tormenting headache in the night. Iodide of potassium continued. The scabs and infiltrate in the face and in other isolated spots darker and of a redder hue and more succulent. Under part of two loosened crusts on the upper parts of the arms left for further control without local treatment; the pus discharged was normal.

March 19th. Less headache in the morning, pulse 100-108. No further abnormality on the part of any of the organs. Induration on penis much less. Appetite and digestion good. Strength increasing. To-day the patient, on account of the headaches, refused the continuation of the cure with chrome-water in spite of the extraordinary success attending the same. He had drunk about forty-two bottles altogether.

Epicrisis. The inclination at times to rapid pulse, the fickle changes in the rapidity, which often within a few minutes fluctuated from normal pulse to 108 beats, the somewhat weaker beating of the heart with co-existent normal temperature without the least signs of any paralysis, indicated a disturbance of the innervation which might have its place either in the heart itself or in the regions of the regulating heart-nerves at their sources in the brain. Just as in the case of the re-nourishment of reduced typhus patients, striking fluctuations of pulse without the feeling of palpitation of the heart and raising of temperature, so are such disturbances of the innervation of the heart to be met with in the stage of rapid improvement in substance after hunger-cure. Excursions in the open air and heavy wine, for which the patient had a desire, were only allowed in moderation (from February 1st to March 18th, four bottles of Madeira), and induced a com-

fortable feeling and never palpitation of the heart. This in conjunction with the great anemia of the mucous membrane indicated the anemic character of the pulse fluctuations. The high degree of anemia called for blood-making medication. Preparations of iron could not be given, as according to Wunderlich they are a sensitive reagent on syphilis. Malignant appearances of syphilis became worse after the use of ferrum and ferri iodidum. The rapid improvement in the nutrition of my patient proved that in addition to the specific healing power of the kalii bichromicum it possessed a decided blood-making property.

The headaches, however, in addition to anemia were especially to be considered as syphilitic.

1. Because they were the worse during the night.
2. Because they made their appearance independent of the pulse.
3. Because they were not in part appearance of fever or inflamed process; temperature appeared normal.
4. Because they abated after iodide of potassium.

The rapidity of the pulse could be also considered as independent of the consequences of a simultaneous progressive independent process.

Anyhow the case was a complicated one, and by the frequent return of this pulse-rapidity not without danger.

Finally, it would be a mistake to consider the pulse-rapidity and the headache as the consequences of taking kalii bichromicum.

1. Because an experiment on an animal proved that kalii chromicum was taken without any effect accruing. (See my book on the "Chrome-Water Treatment," page 1.) A double daily dose of the powerful chromate of potassium 0.06, from the kalii bichromicum furnished by me, was injected into the vena jugularis of a little dog. Naturally, after such a forcible act, the animal vomited, but was quite well again after a quarter of an hour; ate again and remained healthy.

2. Six physicians have taken the kalii bichromicum largely diluted with water, for a month, without any effects on their health. When the solution was too concentrated the stomach was affected and vomiting, etc., ensued, sometimes pains in the limbs. Never was headache complained of as a prominent symptom of the action of chromium.

3. Dr. Dolbeau, Paris, secretary to the former Imperial Society of Surgery, Paris, who used the remedy with advantage against syphilis, says that kalii bichromicum is not harmful. (See above-mentioned book, page 4.)

4. Dr. Gossman also, in a dissertation addressed to the Munich University and communicated to me, lays stress on the fact that kalii bichromicum is not harmful, while the administration of mercury may often have very unpleasant consequences. Here have a number of cases been treated and cured after my prescription. The remedy is urgently recommended. Signs of poisoning have never been observed; headache owing to chromium never happened. When the dose furnished had been larger than prescribed by me, there appeared only derangement of the stomach similar to that produced by mercury.

5. I myself have used the kalii bichromicum combined with carbonate of soda, during a period of sixteen years, in more than two thousand cases, and never observed bad consequences or inconvenience. The patients' appetites were increased, as in the case of the present patient, and they were well and strong. Numerous physicians say the same, who have used the preparation with success.

6. A physician, so reduced by syphilis and use of mercury that he had to lie continually in bed, had used the chrome-water with such success as to ascribe his recovery solely to the same. This he communicated to me in a letter. On examination I found no syphilis whatever. Without my prescription the patient had used the chrome-water for over a year. During this period he felt always well and remained so. A lady who had pursued a similar course developed no symptoms of poisoning through chrome; she was flourishing and healthy.

7. When we have shown now that in consequence of the inward use of chrome no strikingly remarkable symptoms in the head appeared, especially no threatening headache, the above-mentioned examples prove that intense headache is fairly cured by chrome-water.*

8. In the inaugural dissertation by Pander, the innocuousness of kalii bichromicum on the central nervous system and on the heart was experimentally proved. Doses a hundredfold larger, as I let them be taken in chrome-water, were injected into the jugular veins of dogs. There was neither excitation nor lowering of the pulse in consequence. The result of continuing the injections into the veins up to lethal doses was that the dogs were found to bear more kalii bichromicum than sulphate of iron. 12 milligrams kalii bichromicum per kilo weight of the body injected into the dog had no effect on the animal, while 10 milligrams solution of manganese and 25 milligrams solution of iron per kilo weight of the body killed him.

* The Blood-making and Prophylactic Properties of Chrome-water Treatment of Venereal Ulcers. Allgem. Wiener Medical Zeitung, 1891, Nos. 4, 5, 6, 7, 8. Alexander Beyer, Bookseller, Dresden.

9. The daily doses given by me in the case of our present patient were nothing like so large as those prescribed in the Pharmacology of Simon and Waldenburg, 1877, page 421. I prescribe daily 0.003 kalii bichromicum in four doses, while 0.015 is allowed by them several times daily.

From this it would be a mistake to consider the headaches in the case of our patient as the result of taking chromium. After our explanation too, the pulse-rapidity can not be attributed to the same cause; in addition we have never in our experience observed pulse-rapidity of any importance after use of chrome-water. Six days later the assistant physician of the hospital informed me that the patient was in very good health, attacks of headache being farther apart.

The circumstance that such attacks of headache appeared after suspension of chrome-water proves undoubtedly that the same had no connection with the chrome, the headaches being present when not using chrome-water. The infiltrations in the face in consequence of the after-effects of chrome-water still further receded, just as we could observe during the pauses when I had at times suspended the use of chrome-water. In the free intervals without chrome-water the ulcers healed too, without one's being able to assert that this healing process could be considered as spontaneous. In spite of the fact that the patient, as a strong believer in the so-called "nature-system," claimed to have avoided very strictly the use of mercury, his face had been smeared with an ointment of mercury. Doubtless the whole success of the treatment will be attributed to this ointment. Its use, however, was stopped at once when the patient came under my care.

The chrome-water from O. Lische, Plauen-Dresden, has thus proved itself to be a positive specific for syphilis; it preserved the patient from destruction of the eyelids and the sight, from the loss of the nose, and from disfigurement of the face; it freed him from odor from the nose; it has preserved him from a threatening amputation of the foot. While formerly it was required to dress the many ulcers singly, under agonizing pain, now such local treatment is no more necessary. The patient was spared all this pain, and the destructive suppuration ceased. While the patient before the beginning of the cure with chrome-water brooded in a half-crazy condition, could scarcely use his limbs, and was a loathsome and frightful object to those around him, and was "given up" by the doctors, he has since spent satisfactory cheerful days of convalescence, and in a strikingly short time learned

to walk again. The ulcers are healed, and there is very good reason for believing, after analogy of other cases healed by me, that the healing process will continue.

NOTE. The patient awaited the after-cure according to plan of cure, in the Alps, without medication, and was completely healed years ago.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

A Royal Oculist; A Gaelic Poet; Mrs. Gee and the Liverpool Medical School; Cancer Wards at the Middlesex Hospital; Sir Walter Foster; Foreign Body in Bladder; Death of Sir J. Buckhill, M. D.; The Royal British Nurses' Association.

Prince Charles Theodore, of Bavaria, the Royal oculist, has been staying in the Tyrol, and during his sojourn there has received a large number of patients of all classes. On one occasion he gave his thousandth consultation. The Prince works "*pour l'honneur*" only.

The Queen has accepted a poem in Gaelic, which has been written in honor of the Diamond Jubilee by the honorary bard of the Clan Macgregor, Surgeon-Colonel J. Macgregor, late of the Indian medical service. Her Majesty has also accepted a companion poem by Colonel Macgregor, written for the Jubilee ten years ago, while the poet was on active duty in Upper Burmah.

By the will of Mrs. Gee, widow of the late Robert Gee, lecturer on the diseases of children in the Liverpool medical schools, over £7,000 has been bequeathed to the University College, Liverpool, for the purpose of advancing the medical department and promoting the study and research of medical science. It has been decided to institute a Robert Gee Fellowship in Anatomy, value £100, for one year, and four entrance scholarships of £25 for one year each.

The refusal of the Royal College of Veterinary Surgeons to admit to a professional examination a lady who had duly passed the preliminary examination as a veterinary student is to form the subject of an action in a Scotch court.

The Middlesex Hospital has always devoted special wards to the treatment of cancer since, in 1792, a generous donor who subsequently proved to be Mr. Samuel Whitbread, the well-known philanthropist, gave anonymously a large sum for the opening of a ward in which patients suffering

from cancer could remain until "relieved by art or released by death." Since that time other benefactors have given funds for the same purpose, and hitherto the hospital has been able to support three wards with twenty-six beds for women thus afflicted. However, of recent years the demands for admission have so largely increased that the Board of Management have thought to provide increased accommodation by opening larger wards in a detached building. A site for this was obtained, and in 1894 the Prince of Wales presided over a festival dinner at which and subsequently the sum of £8,000 was collected. Princess Christian has now laid the foundation stone of the new building, and the chairman of the hospital read an address setting forth the statistics of the Registrar-General as to the increase of deaths from cancer, which in 1885 were five hundred and seventy-two per million of the population, and in 1895 had risen to seven hundred and fifty-five per million.

At the next annual meeting of the British Medical Association Sir Walter Foster will be presented with the gold medal of the Association. Sir Walter recently made a strong speech in the House of Commons in favor of the Miners' Eight Hours Bill. He showed that mining is one of our most dangerous trades. Of some five hundred thousand men engaged in it, nearly one hundred thousand were injured every year, and about one thousand were killed. Comparing the miners' and the agricultural laborers' occupations, the death-rate of the former is greater than that of the latter in the proportion of eight hundred and ninety to seven hundred.

Arrangements have been made for the production in London of a play from the pen of Dr. Dabbs, a member of the medical profession long practicing in the Isle of Wight, where he had the late Lord Tennyson for a patient. Dr. Dabbs is not unknown as a dramatist, the title of his new piece is *The Blind Musician*.

Surgeon-Major Phipps reports from India the cure of a man, aged thirty, who came under his care, saying that a week previously he had passed a leatherboot lace down his urethra with the object, as he expressed it of "clearing the pipe out," as he did not think his stream of urine was as free as it should be. The end of the lace having slipped from his fingers and disappeared within the urethra, he endeavored to "cut it out" himself with a penknife, but could not succeed in opening the urethra. Upon examination a recent scar was found over the urethra about three inches from the meatus. No trace of the bootlace could be found by external examination or upon passing a catheter. The urine was blood stained, and contained mucous and phosphates. After a few days' rest median lithotomy was performed, the bootlace was found lying coiled up in the bladder, and was withdrawn by means of an ordinary pair of dressing forceps. It measured fourteen inches in length, and was thickly coated with a tough phosphatic deposit. The patient made a speedy and good recovery.

Sir John Charles Buckhill, M. D., has just died at the age of seventy-nine years. He published, among other works, "*The Psychology of Shake-*

speare" and Notes on American Asylums. Dr. Buckhill, in 1852, through the influence of the late Earl Fortescue, obtained the permission of the Government that the First Devon and Exeter Volunteer Rifles should be embodied, and he was the first recruit of this the primary regiment of the then new volunteer movement. He received the honor of knighthood in 1893.

The annual meeting of the Royal British Nurses' Association drew nurses from every quarter of the compass. Rumors of disaffection in the ranks caused an unusually large attendance of members of the association, the nursing and medical professions being well represented, Sir J. C. Brown taking the chair. Mrs. Bedford Fenwick, late matron of St. Bartholomew's Hospital, complained that the women were not allowed to manage their affairs in their own way. Dr. Fenwick criticized the large expenditure of the Association, to which Mr. Langton, F. R. C. S., rejoined that much of this expense was the result of litigation against the Association by some of its members, for the internal struggles have on several occasions been brought for settlement to the law courts. Mr. Langton, Mr. Pickering Pick, and Dr. Buzzard did their best to throw oil on the troubled waters. At the end of a stormy meeting a vote by a very large majority of the members expressed unshaken confidence in the honorary officers who had been severely criticized in the course of the proceedings. Mr. Langton, the treasurer, during the afternoon held a reception at their house in Harley Street, where the Royal British enjoyed in sociable spirit the flowers, the music, and entertainment provided for them.

At Guy's Hospital formic aldehyde or formalin is looked upon almost as a specific in the treatment of ringworm. The treatment was discovered accidentally by Mr. Alfred Salben, a cultivation of the ringworm fungus being destroyed one night through the stopper out of a bottle of formalin being left out.

LONDON, July, 1897.

ARREST OF HEMORRHAGE IN HEMOPHILIA BY THE APPLICATION OF HEALTHY BLOOD.—Dr. Bienwald has employed this very original method in the case of a child, aged two years, the subject of hemophilia. Having failed to arrest the hemorrhage from a small wound on the face by the application of perchloride of iron, he obtained some blood by aspiration from a healthy subject and deposited it on the wound. In a few minutes it coagulated, and the hemorrhage at once ceased. His explanation of the action of the remedy is that it supplies the ferment necessary for thrombosis in the small vessels. Whether this is correct or not is impossible to say in the absence of definite knowledge of the pathology of hemophilia. As affording his explanation some support we may mention the success obtained by Dr. A. E. Wright in his experiments with a solution of fibrin ferment and chloride of calcium as a styptic. Dr. Bienwald's ingenious method certainly deserves a trial.—*Lancet*.

Abstracts and Selections.

THE TREATMENT OF CHILDREN'S DIARRHEAS.—In the May 29th issue of this journal there is an abstract of an article by Mr. Langford Symes, entitled *Clinical Pictures of Children's Diseases*, which appeared in the June number of the *Dublin Journal of Medical Science*, and, in the July number of that journal, in continuation of the same article, Mr. Symes says, concerning the general management of the disease, that the child should be kept warm with the legs and arms wrapped in cotton wool and hot bottles around the body. A wool jacket and a flannel binder should be worn. This heat is of the first importance; all heat must be preserved, especially in diarrhea. Cleanliness is also important; clean, dry napkins must be constantly applied; the bed must be level and smooth, and fresh linen put on whenever it is required. All the rest possible must be procured; eruptions, irritations, and excoriations must be relieved by the use of suitable powders, such as oxide and carbonate of zinc, with a little boric acid or a weak carbolated solution of subacetate of lead. The mouth should be carefully attended to; daily cleansing will be necessary to remove fungi or thrush if it is present. Glycerine of borax, diluted peroxide of hydrogen (a two-per-cent solution), and salol in glycerine are excellent applications.

Regarding the removal of irritating particles of food, Mr. Symes advises giving a purgative to stop purging. The best drug, he says, is castor oil. It affects the stomach and upper portions of the small intestines. There are two ways of giving it. A full dose acts directly as a thorough purge, and clears the bowel; a dram is quite sufficient for a child a year old, and half a dram for a younger infant. The earlier this is given the better. In chronic attacks from ten to fifteen minims given daily, in the mornings, is best for some, if continued for a long time. The second method is to give five minims every hour. This is very soothing for small children. An extremely useful prescription is:

R Castor oil, 5 minims;
Mucilage of acacia, 15 "
Peppermint-water, enough to make a dram. M.
Sig: To be given every hour.

If thought advisable, one minim of the British official solution of corrosive sublimate in each dram of the castor-oil mixture does great good. Olive oil is suitable for very young infants; fluid magnesia, licorice powder, tamar indien, or elixir of senna, for older children. The syrup of rhubarb also acts well. Another useful mixture is:

R Powdered rhubarb, 1 grain;
Sodium bicarbonate, $\frac{1}{2}$ "
Syrup of ginger, 8 minims;
Peppermint-water, enough to make a dram. M.

The administration of a purge in the collapsed states of severe infective summer diarrhea is an extremely serious matter. The question can be decided only by a thorough grasp and appreciation of the case in point.

Much care is necessary with the food, and Mr. Symes thinks that pure fresh milk is undoubtedly best unboiled, if the source is known to be pure, but in cities it is safest to boil it before use. Concerning the milk diet, the author recommends the following: (1) Diluted milk. This in equal parts or a third of pure water breaks up the curd. Barley-water makes the curd less firm. Soda-water is excellent if the child will take it. Lime-water is often used, but a few drops of the saccharated solution are best if lime is required medicinally. Plain boiled water is a good diluent, or an ounce each of milk, lime-water, and boiled water. (2) Humanized milk. This contains less curd and more cream. The only scientific way of feeding infants artificially is by regulating the percentage of proteids, fats, and sugar. The proteids should be kept at about one per cent. (3) Peptonized milk. (4) Condensed milk if good. (5) Sterilized milk. This is free from poisonous germs. (6) Pasteurized milk. Regarding the elimination of starch from the food, says Mr. Symes, bread-jelly, barley-water, rice-water, and Mellin's food seem to be the least disastrous of starchy foods, although they are often inadmissible. The use of milk should be stopped altogether in severe cases.

There are many *substitutes for milk*. Raw-meat juice is excellent for children; it is a good antiscorbutic. The scrapings of a rump steak against the grain may be used, or it may be shredded, pounded, and strained through muslin; of this a dram may be given every four or six hours, sweetened.

White of egg diluted, or "albumin-water," is the white of an egg cut in various directions with clean scissors, shaken up in a flask, with a pinch of salt and six ounces of pure cold water, strained through muslin, and sweetened. This may be given alone or with mixed milk. Valentine's meat juice, Brand's jelly, veal or chicken tea, white-wine whey, plenty of pure fresh water, beef essence, beef pulp, clear soup, chicken jelly, the yolk of an egg beaten into an emulsion, with hot water, strained and sweetened, and raw-meat jelly are also good substitutes.

Antiseptics, continues the author, should be employed to allay fermentation, and the most useful of these are the following: *Calomel*. This should be given at once, with or after an initial dose of castor oil, frequently in fractions of a grain. *Resorcin*. From half a grain to five grains will be active in the stomach and upper intestinal tract. It is not irritating, and is soluble and sweet. It may be given with glycerine and cinnamon-water and a carefully regulated dose of tincture of opium, or with bismuth carbonate and Dover's powder. The use of resorcin should be continued after the diarrhea has disappeared. *Bismuth salicylate*. From one to three grains every hour. *Benzol naphthol*. Dr. Fenwick uses as much as thirty grains a day. It is not poisonous. *Sodium salicylate*. From two to four grains every four hours will relieve gastric fermentation. *Glycerine of car-*

boric acid. From one to four minims; this may be usefully combined with castor oil. *Naphthalene.* From one to three grains. *Glycerine of borax.* Thirty minims. Other drugs, such as thymol, listerine, salol, and lactic acid are also useful.

Intestinal irrigation, says Mr. Symes, is well worth trying, and it must be a high irrigation of the bowel with a soft-rubber catheter from a glass douche-can. First wash out the rectum, and then irrigate with a normal saline solution or boric-acid lotion used warm. Slight elevation of the douche-can is sufficient—eighteen inches. It is carried out in bed, and an india-rubber bed-pan is a great help. A small enema is of no use. Rectal irrigation is one thing, but intestinal irrigation is quite another.

Washing out the stomach is vigorously recommended by Dr. Vaughan with sixty grains of sodium bicarbonate in a pint of water at 100° F. Resorcin and boric-acid solutions have also been suggested by Continental writers.

One of the best sedatives to allay excessive or abnormal peristalsis is opium. When carefully given it does no harm. A child three months old might be given a quarter of a minim of tincture of opium for a dose. A most excellent form is:

R Paregoric, } each, 1 minim;
 Glycerine of carbolic acid, }
 Castor oil, 5 minims;
 Mucilage of acacia, 15 "
 Peppermint-water, enough to make a dram. M.

For a child a year old the dose of paregoric may be from five to ten drops, or of Dover's powder, half a grain.

Chlorodyne may also be given if its action is carefully watched. The greatest care must be taken in the prescription of opium, for it is dangerous though useful.

In older children a very useful powder is:

R Bismuth carbonate, } each 3 grains;
 Sodium bicarbonate, }
 Dover's powder, 1 grain. M.
 Sig: Two such powders to be taken in a day.

In case of collapse, the author continues, fresh pure water to drink is strongly indicated. Water is essential to life, and if it can not be given by the mouth, it may be injected warm into the rectum. The loss of water is extreme, and in the dry condition of the tissues we respond to Nature's call if it is administered. Stimulants also may be given, such as brandy or strong coffee; camphor, from a quarter of a grain to two grains, may be suspended in mucilage with glycerine. A one-per-cent sterilized saline solution may also be given hypodermically, ten cubic centimeters at a time with a Roux syringe.—*New York Medical Journal.*

OPERATION FOR PERFORATION IN TYPHOID FEVER.—An extremely interesting discussion recently took place at the Royal Medical and Chirurgical Society on the operative treatment of perforation in enteric fever. Two papers were read on two cases, on each of which Mr. Bowlby operated. Both the patients were convalescent and both recovered. In Dr. Lauder Brunton's case perforation occurred, but the symptoms were not nearly so severe or so suggestive of perforation as in Dr. Herringham's patient, in whom laparotomy revealed the fact that there was no perforation, peritonitis, or other apparently sufficient cause for the extreme gravity of the symptoms. The colon was packed with scybala, and this appears to have been the cause, for they were removed by enemata directly the operation was over, and the patient straightway recovered. Constipation and subsequent colic must therefore be borne in mind as a possible cause of alarming symptoms, and should render caution necessary in allowing long-continued inactivity of the bowels to occur in typhoid fever; for such a course may bring about results closely stimulating the accident (perforation) which prompts its adoption. The two cases form a striking contrast, and seem not only, as Dr. S. Phillips pointed out, to emphasize the difficulty of diagnosing with any certainty whether perforation has or has not taken place, but also to throw doubt on the view that perforation may be recovered from spontaneously. In Dr. Herringham's case the symptoms justified an emphatic diagnosis of perforation, and had not operative proof that no perforation existed been provided it would fairly have been regarded as a case in point.

Mr. Shield referred to an interesting case in which the symptoms of perforation of the bowel occurred after typhoid fever, but were found to be due to perforation of the gall-bladder.

Both the patients referred to in the papers were convalescent and in good condition, and therefore bore the operation well; and it is in such cases, as Dr. Goodall pointed out, that operative measures may be expected to succeed. But it must be borne in mind that the majority of cases of perforation in typhoid fever are met with during the course of the fever when the patient is in a most unfavorable state for operation. Cases for operation, therefore, must be carefully selected, or the operation, on which Dr. Brunton and Mr. Bowlby are to be sincerely congratulated, will be discredited rather than established.—*British Medicine Journal*.

FATAL POLYNEURITIS.—Brauer (*Berl. klin. Woch.*) discusses a case occurring in a syphilitic patient treated with mercury. A man, aged twenty-four, acquired syphilis in the beginning of August, 1895, and was treated with a five weeks' course of mercurial inunction shortly afterward. At first 3 g., and later 5 g., were used daily. There was no stomatitis or salivation. Toward the end of the five weeks he experienced a feeling of numbness in the fingers, and the arms became weak, but the legs were unaffected. The mercury was at once stopped, but as he was going home

he experienced some uncertainty in his gait. On the second day the legs became weak, and on the third day there was some difficulty in speech. Swallowing was also difficult. He steadily became worse, and on October 9th secondary syphilitic skin affection appeared. For this he was treated by injections of salicylate of mercury. The syphilide disappeared, but the nervous symptoms became worse. When admitted into the medical wards there was a well-marked paresis of both arms and legs. No muscles were completely paralyzed. The movements were ataxic. There was impairment of sensation, but no pains. The patellar reflexes had gone. Coarse fibrillary twitchings were present in the affected muscles. The nerves were tender, and in a less degree the muscles. There was a partial reaction of degeneration. The sphincters were easily disturbed, and there was moderate constipation. Suffocative attacks supervened, and the diaphragm was found paralyzed on January 19th. Death resulted from pneumonia. Marked pathological changes were found in the nerves, consisting of degeneration in the medullary sheath, and a slight proliferation in the interstitial tissue. The axis cylinders were slightly swollen in places. There was no disease in the nerve roots, and no pathological changes in the minute arteries. The brain and spinal cord were intact. The muscles only showed slight morbid changes. There was no other possible cause of the neuritis than recent syphilis and mercurial intoxication. In syphilis the nervous system may be involved, either by the specific syphilitic lesion or by changes caused by the toxins in the blood. A true syphilitic affection could be excluded with certainty. The slight changes in the interstitial tissue in the nerves were in all probability due to the degeneration in the parenchymatous elements. Syphilitic neuritis does not occur in so widespread and symmetrical a form. Finally, syphilitic nervous affections rarely supervene at a time when syphilitic manifestations are disappearing under anti-syphilitic treatment.—*Ibid.*

GONORRHEA AS A CAUSE OF STERILITY.—In the *Centralblatt für Gynäkologie* for July 3d there is an abstract of an article by Dr. B. Vedeler, published in the *Norsk Magazin for Lægevidensken* in 1885. Vedeler analyzed the cases of three hundred and ten women who had been married for at least a year without becoming pregnant. Seventy-two of them had been married ten years or over, and the rest three years on an average. He examined fifty of these women's husbands, and found that thirty-eight of them had had gonorrhea, and thirty-four of them had infected their wives. He infers that in the whole number of husbands there must have been two hundred and thirty-five who had had gonorrhea, and that two hundred and ten of them must have infected their wives. He regards this inference as supported by the fact that in a hundred and ninety-eight of the women he found the same inflammatory lesions as in the thirty-four who were known to have contracted the disease from their husbands.—*New York Medical Journal.*

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APPARENT DEATH AND PREMATURE BURIAL.

The incidents and exigencies of life present to the imagination no horror comparable to the thought of being buried alive. So much has been written upon the subject, and so many ingenious scientific tests have been devised for determining the extinction of the vital spark, that a mistake here would seem impossible. But in truth the phenomena of hypnotism and trance are often so like death that the conscientious physician can not disregard their possible presence in cases of alleged death from obscure causes—nor can he close his eyes to the fact that in the great majority of cases the scientific tests of extinct vitality are never thought of, much less applied; while in far too many instances the dead are hurried to the grave in so short a space of time as to justify the imputation of criminal carelessness to those who have charge of the burial.

To pronounce a person dead upon the apparent cessation of respiratory and circulatory movements, loss of body heat, and the development of *rigor mortis* may be sufficient when death occurs in the course of acute and chronic disease; but this is not sufficient in cases of sudden death from supposed apoplexy, heart failure, or angina pectoris. It would therefore be both humane and salutary to provide by law for an authoritative inspection of the subjects of all such

deaths by an officer competent to make such tests as would put the question beyond all possible doubt.

The Medical News in a recent issue thus admirably sets forth the scientific aspect of the question:

The late Sir Benjamin Richardson, who had made the condition of trance, catalepsy, and other death-counterfeits the study of investigation, formulated the following tests as necessary to unequivocally establish the reality of dissolution: (1) Respiratory failure, including absence of visible movements of the chest, absence of the respiratory murmur, absence of condensation of moisture in the breath. (2) Cardiac failure, including absence of arterial pulsation, of cardiac motion, and of cardiac sounds. (3) Absence of turgescence, or filling of the veins, on making pressure between them and the heart. (4) Reduction of the temperature of the body below the normal standard (98° F. in the axilla). (5) Rigor mortis and muscular collapse. (6) Coagulation of the blood. (7) Putrefactive decomposition. (8) Absence of red color in semitransparent parts under the influence of powerful rays of light. (9) Absence of muscular contraction under the stimulus of galvanism, of heat, and of puncture. (10) Absence of the red blush of the skin after subcutaneous injection of ammonia (Montiverdi's test). (11) Absence of the signs of rust or oxidation of a bright steel blade, after plunging it deeply into the tissues (the needle test of MM. Cloquet and Laborde).

In a book written on the subject of premature burial, a review of which appears in *La Médecine Moderne*, February 24, 1897, the author, Icard, maintains that the only certain proof of death is the *absolute* cessation of circulation. He emphasizes absolute, because the pulsations of the heart may be imperceptible although the circulation still continues. Icard believes that he has discovered in *absorption* an infallible method of determining whether or not circulation has ceased. If any substance be injected into a corpse it will remain at the point of injection. If circulation is present, no matter how feeble, a portion of the injected substance will be carried away, and its presence may be demonstrated in other portions of the body; if this takes place the individual is not yet dead, no matter what other signs of death may exist. The substance used for this purpose should be soluble in water, non-toxic, easily recognizable in minute quantities, and one which is not present in any portion of the human body either normally or accidentally. There are many substances which fulfill these requirements, such as the ferrocyamides of sodium and potassium, some of the iodides, etc., but the best of all is fluorescein. Dissolved in an alkali, this substance produces a beautiful fluorescent green, while its power of coloring is so strong that a sixth of a grain will distinctly color one hundred gallons of water. By experiments upon dogs, cats, rabbits, and guinea-pigs, Icard found that ten grains of fluorescein are more than sufficient to produce in an adult a characteristic reaction. In order, therefore, to determine the

death of a person, 2 drams of the following solution are injected hypodermatically.

| | | |
|---|-----------------------------------|-------|
| R | Fluorescein, | 3 ij; |
| | Sodæ carbonat., | 3 ij; |
| | Aquæ destil., q. s. ad, | 3 ij. |

If circulation is present, there will become evident an emerald-green color of the cornea of the eye, of the skin, and of the urine. The coloration of the blood itself is determined by passing underneath the skin one or two cotton threads in order to soak up blood and serum. These are then placed in a test-tube and two teaspoonfuls of water are added, and the mixture is boiled to destroy the red coloring matter of the blood. If there is any fluorescein present, its green color will become apparent.

The old-fashioned blister and faradic battery tests are, perhaps for good reason, excluded from the list. They stand, however, upon good authority. Some contend that decomposition is the only infallible sign of death. It may be suggested that in the modern practice of embalming we have a test that ought to satisfy the most obdurate skeptic.

Notes and Queries.

THE ILL-HEALTH OF MOLIERE AND ITS CAUSE.—The mysterious Boulanger de Chalussay, author of the libelous "*Elomire Hypochondre, ou les Médecins Vengés*"—who is described by Dr. A. M. Brown in his recently published work as "a personage little known, but possessing no mean talent as a writer, and dangerous as an assailant on his own account or as a mercenary in a literary plot, where a rival's character and reputation were at stake"—endeavored to brand the great French dramatist as a prating hypochondriac; psychologically, morally, and physically repulsive; a corrupter of morals and a buffoon, who regarded his medical advisers as assassins aggravating his malady by their vengeful treatment when as a patient they had him in their power. But after an exhaustive study of his theme Dr. Brown has come to the conclusion that in reality Molière was a victim of chronic phthisis. The passage in which this opinion is expressed runs as follows: "The nature of the malady, which for years he had been nursing like a wolf within his breast, is far too strongly marked to leave a doubt upon our minds. The condition in which some profess to see thoracic aneurism or cardiac disease is much more easily explained; in his case these terms have more attraction than reality to recommend them. Rare diseases are not reserved for rarest men—here nature is impartial. Molière was an ordinary *poitrinaire*, the victim of that malady which the statistics of

mortality have vulgarized. In every allusion, personal or narrated, respecting his health and sufferings we can trace a faithful record of a chronic ulceration of the lungs, continually masked by ailments peculiar to his high-wrought mind and constitution morbidly affected, destructive processes internally at work, and easily misread. To his worshipers it is the genius struggling with mental affliction, rather than the mortal suffering from bodily disease, that shows throughout the melancholy history of his illness. The characteristic cough, emaciation, constitutional debility, and occasional pulmonary hemorrhage, present the veritable portraiture of those organic ravages, indefinitely prolonged, which receive the name of phthisis. It is rarely that we see that amount of constitutional resistance which the great comedian's case exhibits; the all unequal contest between life and death generally terminates much sooner, but, terminate when it may, the victory is never doubtful—the patient must finally succumb." Dr. Brown is no doubt correct in his views regarding the disease from which Molière suffered, and unquestionably he has thrown considerable light upon the inner life of the poet and the motives that actuated him in his raids against the medical profession. Whatever the cause may have been that prompted Chalussay to pen his ignoble satire, it is satisfactory to find that the Faculty did not consider itself honored by his service, but, on the contrary, cordially disapproved of the libeler's caricature which was universally thought to display animus as virulent as it was merciless.—*Lancet*.

METHYLENE BLUE IN THE TREATMENT OF THE PAINS OF ATAXIA.—In the *Journal des Practiciens* for July 3d we find an abstract of a recent communication to the Société de Biologie by Dr. G. Lemoine, who states that he has made nine trials of methylene blue in the treatment of the pains of ataxia. In two cases there was no good result. Of the seven others, in five there was great diminution of the intensity and frequency of the pains, and in two there was complete and prolonged sedation. Those that yield most quickly he says are the lightning pains in the limbs and the girdle pains; those that are most obstinate are the visceral pains, especially those of the stomach and the rectum; those of the bladder subside rather readily. In the two cases in which the remedy failed altogether, the pains were exclusively gastric. M. Lemoine says that the action of the drug is very prompt; the pain begins to subside in three or four hours after the urine has become colored blue. Another advantage is that the effect lasts for several days after the administration of the drug has been stopped, and sometimes for a number of weeks.—*New York Medical Journal*.

GAS GEYSERS.—It has often been proposed to legislate specially so as to compel the provision of proper flues and appliances in connection with geysers so as to render accidents impossible. The death-roll from geysers is a long one. The last victim is a young, healthy woman found dead in a bath-room. It would appear that a geyser was fitted up only the previous

day; the deceased was found dead, lying on her back, and a strong smell of coal-gas pervaded the room. There appears to have been no special ventilation, and the windows were closed. So far as the metropolis is concerned, the wording of the Public Health (London) Act, which expressly includes under the word "nuisances" matters "dangerous" to health, appears to be sufficiently wide to include any gas geyser so fitted as not to carry off effectually all unconsumed gas and all products of combustion out of the bath-room. If this view is correct it is the duty of the sanitary officers to treat such matters which come under their observation as nuisances to be abated in the ordinary way. There can be but little doubt that by far the majority of cases of death from the inhalation of coal-gas are produced by carbon monoxide poisoning, coal-gas usually containing about eight per cent of CO. It may also be presumed that the undoubted cases of anemia, of headache, and of *malaise* which result from the inhalation of small quantities of coal-gas are due to the same cause. — *British Medical Journal*.

METHYLENE BLUE IN RHEUMATOID ARTHRITIS.—Commenting upon Dr. J. R. Philpot's note in the *British American Journal* of March 27th, as he has for some time past been giving a trial to methylene blue in rheumatoid arthritis, Dr. William Armstrong says: "I prescribed it mainly in those cases in which I saw reason to suspect that toxins formed in the intestinal canal were setting up—and keeping up—irritation in the joint centers of the spinal cord. My reason for doing so was that I believed it to be a powerful oxygen carrier and a destroyer of bacilli. Cases of this class treated by methylene blue, in conjunction with the Buxton thermal and galvanic baths, improved more rapidly and were less liable to relapse than those treated by the baths alone; but cases which seemed to depend upon utero-ovarian irritation, and those following influenza and other disturbances of the nervous system, did not seem to derive any increased benefit from the addition of this drug to the method of treatment employed. This seems to me to be one more proof that success in the treatment of rheumatoid arthritis depends almost entirely upon a careful search for the initial cause of the disturbance, and modification of the treatment accordingly," etc.

ESOPHAGOTOMY IN THE INFANT.—The operation of esophagotomy is happily so seldom called for that any case in which it has been performed may still prove instructive. One such described by Dr. Lemaistre, of Limoges, in the *Journal de Clinique et de Thérapeutique Infantile*, June 17, 1897, is peculiar, inasmuch as the patient was the youngest whose age has been recorded—an infant of six months. The foreign body was a leaden brooch 3 centimeters long by 1½ broad, which had been swallowed and had lodged in the gullet just below the cricoid cartilage, where it could be felt with the finger passed down the throat. After it had caused more or

less irritation for fourteen days the child was put under chloroform, and the esophagus, which was found at a depth of four centimeters, was opened at its left side opposite the seat of obstruction, the brooch extracted, the wound united with deep sutures—a gauze drain being left in its lower extremity—and a dry antiseptic dressing applied. After a fortnight the wound had healed. Dr. Lemaistre notes in connection with this case the tolerance of foreign bodies shown by the esophagus as compared with the pharynx, and also its great distensibility during life. He gives as the results of dissection of the dead subject approximate measurements of the esophagus. According to these the total length of this structure at birth is 12 centimeters, that from the cricoid to the interclavicular notch of the sternum $3\frac{1}{2}$ centimeters. At six months of age one centimeter has been added to each of these measurements. He advocates a long primary incision from the cricoid to the sternum for this operation, and following the example of H. Schramm, he prefers not to include the mucous membrane in stitching the wound, but would allow its divided surface to unite naturally, thus insuring a more rapid closure.—*Lancet*.

SUTURE MATERIALS FOR SURGICAL AND GYNECOLOGICAL PURPOSES.—Gubaroff. The disadvantage of silk is in its capillarity, while the sterilization of catgut is very often unreliable. Silkworm gut is an excellent sewing material, but expensive; the threads are always short and not suitable for continuous sutures, and to tie a good surgical knot is not easy, and in some locations is almost impossible. Gubaroff recommends linen threads, which are inexpensive and possess all of the advantages and none of the disadvantages of other suture materials in vogue. His method of preparing the sutures is as follows: The threads are boiled in a solution of soda to remove the fat, and afterward washed in cold water. They are again twice boiled (five to six minutes) at an interval of six hours, after which they are kept in alcohol. Drying in a clean room (operating-room) and rolling upon glass spools is the next step, after which they are placed for twenty-four hours in a twenty-five to thirty-percent solution of celloidin (Schering) in equal parts of alcohol and ether. To this solution is added one per cent of sterilized oleum ricini. The sutures are then wound upon a wooden frame for the purpose of drying, and the excess of celloidin is removed by the finger or clean paper. They are kept in a closed glass vessel, and before their usage are twice boiled in sublimate 1-1,000 (six to eight hours and immediately before the operation). *American Journal of Obstetrics*.

PSEUDO-BULBAR PARALYSIS IN CHILDHOOD.—In a recent issue of the *Deutsche Zeitschrift für Nervenheilkunde* Dr. Brauer, of Heidelberg, has published the case of a girl, aged fourteen years, who had an illness characterized by fever and muscular pains, and after a few days was found to have symmetrical affection of the tongue and lips, with difficulty in articulation

and in swallowing and slight paralysis of the right side. There was also afterward interference with the development of the right arm. On examination about a year after the onset of the illness the skull was found to be normal, there was a symmetrical affection of the orbicularis oris, of the depressors of the lower lip, of the levatores menti, the pterygoids, the tongue, and the palate. There was, however, no atrophy of these muscles, but the tongue, which was not well developed, was not moved in speaking. There were no fibrillary contractions, no electrical changes in the muscles, and no sensory impairment. The palate was paralyzed, the palatal reflex lost, the jaw-jerk increased, the speech almost unintelligible, and the intonation distinctly nasal. The right arm was shorter and generally smaller than the left, there was slight weakness of the peroneal muscles of the right leg, and increased reflexes also on this side. The good condition of the muscles, the absence of fibrillary twitchings, the presence of the reflexes and the absence of electrical changes all speak in favor of there not being any nuclear lesion, and Dr. Brauer regards the condition as resulting from a supra-nuclear lesion, apparently the result of acute encephalitis.—*Lancet*.

PHYSIOLOGICAL ALBUMINURIA AND THE BICYCLE.—It seems from certain observations made by Müller (*Münchener medicinische Wochenschrift*, 1896, No. 48; *Centralblatt für innere Medizin*, July 3, 1897,) that in albuminuria that can not be distinguished with the microscope from that of genuine kidney disease, but one that must be looked upon as physiological, since it disappears within a few days after the cessation of the exertion, leaving absolutely no signs of disease. Müller's observations were made on twelve bicyclists, eight of whom he calls trained and four untrained. Among the eight trained wheelmen there was only one whose urine contained albumin before the exercise, but after it the urine was albuminous in seven. In six of them, including the one whose urine was free from albumin, there were at the same time present in the urine casts in numbers as great as are generally met with in acute or chronic parenchymatous nephritis; and the two others had a few hyaline casts. Most of the casts were hyaline; the minority showed distinct renal epithelia and were granular. Free renal epithelia were found in every instance. White blood-corpuscles appeared sparingly, but red corpuscles were not met with at all. Among the four untrained wheelmen, in all of whom the urine was free from albumin before the exercise, two showed albuminuria and one cylindruria after riding from an hour and a half to three hours.—*New York Medical Journal*.

EXPOSING A SCARLET-FEVER PATIENT.—A man named Thomas and his wife were on June 28th summoned at the Ystrad police-court for exposing their daughter while suffering from scarlet fever. The case was notified by the medical attendant, Mr. Evan Jones, of Pentre, on May 22d, and on June 15th the sanitary inspector found the child out in the street. Mr. Evan Jones is reported as having said in evidence that by June 15th the infection

was over. We suppose that the rash was out when Mr. Jones notified the case, so he must have considered that the child became free from infection in the space of twenty-four or at the most twenty-five days, a period, in our opinion, a great deal too short. No scarlet-fever patient should be considered free from infection until the expiration of at least forty-two days from the appearance of the rash, and the medical officer of health, Mr. Herbert Jones, urged this point in court. The stipendiary, however, is reported as saying: "Dr. Jones has given us an instance of a case of infection having ceased in four weeks, so there was no danger." After this the case was dismissed. We see that according to Mr. Herbert Jones' last report, dated June 16, 1897, the mortality for the fourteen years, 1882-1895, per 1,000,000 from scarlet fever was for England and Wales 267, but for the district of Ystradyfodwg 608, and if from three to four weeks is to be generally considered a sufficient period for isolation we are not surprised thereat.—*London Lancet.*

FIBRIN AS A VULNERARY.—At a meeting of the Paris Académie de Médecine held on June 29th (*Journal des Practiciens*, July 3d,) a communication attributed to M. Cornil and M. Carnot was presented on the subject of the repair of loss of hepatic substance by means of lumps of fibrin. Notwithstanding the alleged dual authorship of the communication, it begins with "I have demonstrated" (*J'ai démontré*). The author or authors have demonstrated that fibrin is the primary bond of union between divided tissues. It spreads and seals up the orifices of the vessels. Cells of the epithelial type develop on its surface. If a fragment of aseptic fibrin is introduced into an animal's peritoneum, the morsel will be found abounding in white globules at the end of a few days; moreover, there forms on its surface an investment of endothelial cells. At the end of a week there are new-formed vessels and the mass itself is transformed into connective tissue. If, after a loss of hepatic substance has been occasioned in the dog, a piece of fibrin is placed between the lips of the wound of the liver, analogous phenomena are shown.—*New York Medical Journal.*

LORD LISTER.—Those who were privileged to hear the maiden speech of Lord Lister in the House of Lords report that he made a very good beginning. He spoke without undue nervousness, was well received by the House and well dealt with by the reporters. It is a new sphere for medical men; but the result is such as to justify their translation in yet greater numbers.—*Lancet.*

CAMPHOR AS AN ANTIGALACTOGOGUE.—Hergott (*Rev. Med. de l'Est.*) being dissatisfied with the effect produced by the usual antigalactogogues, including antipyrin, has tried camphor, and finds that nine and a fourth grains a day divided into three doses, and given for three days, nearly always produce a remarkable diminution of the secretion. He has used it in thirty cases, having been first led to try it by the good results obtained by Kiener in animals, especially milch cows.—*British Medical Journal.*

Special Notices.

SANMETTO IN GONORRHEA.—A bottle of Sanmetto enabled me to discharge the patient I was treating, entirely cured. Since then I have had a crop of cases of gonorrhea, such as often explodes in our midst in the form of an epidemic. In the chronic form of gonorrhea, ending in chronic cystitis and urethritis, involving the prostate gland and lymphatics, with backache, malaise, and painful micturition, I think I can say with impartiality that I know of no medicine conserving the purpose of bridging over these troubles like Sanmetto; and I know of no class of troubles which annoy physicians more. In all such cases I would say, put the patients on Sanmetto, and if they do not improve I will give it up. Sanmetto is invaluable in such cases.

J. C. ROBERTS, M. D., Pulaski, Tenn.

ARE YOU IN PAIN? You will probably ask this question more frequently than any other. Nothing appeals to one more strongly. To be able to relieve pain, whether it be a slight nervous headache or the most excruciating suffering from a severe neuralgia, brings the height of pleasure to both patient and attendant.

The ideal remedy must not only do its work, but it must also do it quickly. Touching this point is an article in the Boston Medical and Surgical Reporter, by Hugo Engel, A. M., M. D. The author says:

"Antikamnia has become a favorite with many members of the profession. It is very reliable in all kinds of pain, and as quickly acting as a hypodermic injection of morphia. It is used only internally. To stop pain one five-grain tablet (crushed) is administered at once; ten minutes later the same dose is repeated, and, if necessary, a third dose given ten minutes after the second. In ninety per cent of all cases it immediately stops the pain."

W. A. BAKER, M. D., Clark's Mills, Pa., says: I have had occasion to try Celerina, and am highly pleased with the results. I have used it with marked success in nervous prostration. A lady, sixty-four years of age, of nervous temperament, was stricken down with congestion of the right lung. After the congestion disappeared, her nervous system failed to recover, resulting in prostration. After trying several remedies, I commenced using Celerina and gave teaspoonful doses every six hours, with steady improvement, until restored to normal condition.

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THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PHYSICIANS AS BUSINESS MEN.*

BY RICHARD E. GARNETT, M. D.

Although this meeting was called for the purpose of discussing scientific subjects in a scientific manner by scientific men, yet I do believe it will benefit us fully as much to suspend this glittering display of scientific knowledge and research for a short time and delve among the knotty points of a subject that relates to the lowly question of how to supply bread, butter, and "trimmings" for our families.

Perhaps some may be surprised at my selection of a subject for an occasion like this, but if you will pause a moment and consider how much need there is for some reform in the manner of conducting the business part of our daily lives and observe how many needy homes there are among deserving and enlightened physicians, your wonder would cease.

My object in choosing this subject was not so much to give my own views and ideas on it, for I am free to confess that I stand sadly in need of instructions myself, but to elicit the views of those members present who have followed true business principles all along the line, to show up the sad results of not conforming to rules of this kind as they have come under my observation; and last, but not least, to draw from the experience and wisdom of this body of intelligent and edu-

* Read at the Southern Kentucky Medical Association, Hopkinsville, April 14 and 15, 1897.

cated professional gentlemen the best methods to inaugurate and follow out to correct the great error into which so many of us have fallen.

In this enlightened age of the nineteenth century, which is now so rapidly drawing to a close, when there is a rush and push and jostle among all classes of men for the supremacy, it has come to be the case that the man, no matter what his calling, who fails to adhere to sound business principles in his work must go to the wall to make room for some more successful competitor who does follow such methods.

It is more and more the case in our own profession, and will probably continue to grow more so as time goes on. This is one reason why the arrant quack with a few nostrums, well rounded sentences, and plausible claims, can step right in to the midst of a number of physicians who are well up in their professional attainments, and know more about disease and its successful management than this same quack could by any possibility cram into his cranium in a lifetime, and take from those men their best patients, reap a rich harvest of sheckels and pass on to the next town, repeating the performance wherever he goes.

Don't infer from this that I approve of the tactics employed by him in the least, for you will not find a more earnest advocate of or a greater stickler for the Code of Ethics than I am. But I do say that if the regular physicians kept the financial part of their business in as good shape as he does, and insisted as firmly on receiving prompt pay for services rendered, he could not take from their patrons the means that should go to justly compensate the home physicians who have given to them days, weeks, and months of close attention without having received one cent of pay. But to the question in hand. Is the general practitioner throughout the country and in the smaller towns and cities usually a success or failure from a financial standpoint? If a success, his environments will plainly evidence the fact, or *vice versa*.

If he is a success, let us all emulate his example and soon surround our families with all the luxuries and pleasures that belong to the successful and wealthy man; if he is a failure, let us look scrutinizingly into the cause, and in our wisdom suggest some feasible means by which to remedy the evil.

So far as my own individual observation goes there are quite a number of doctors who make a bare living, with very little "trimmins," to every one who obtains a competence and lays away a snug sum for

rainy days or for old age, which will surely come to us all sooner or later unless the grim messenger precedes it.

I could cite you many instances of the correctness of my position, but will take up your time only long enough to call your attention to two typical cases.

The first one was raised in a neighboring county to mine, and commenced practice in his early manhood in a little village near the historic banks of Green River. He swung his shingle to the breeze with his youthful heart full of roseate views of what great things the future held in store for him, and began his life work with vigor and vim and quickly took rank among the foremost physicians of his county.

His practice was large and among people of means, and for sixty long years he toiled early and late and gave the whole power of his fervid nature to his work. He was a close student, a keen observer, a Christian gentleman, almost frugal in his manner of living, devoid of all extravagant habits, beloved of all; and yet after all he died, last year, at the ripe old age of eighty-three years, and left barely enough to give him a respectable burial.

Why was it so? Simply because he attended to his financial affairs in such a lax way that they went on from bad to worse, until he could tell nothing of them himself; his accounts went unsettled and uncollected from year to year, and finally many debtors moved off or died, so the fruits of his long years of labor were lost to him and his family.

I will refer you to yet one more who is even nearer to me than the one just mentioned. He commenced practice somewhere about the beginning of the war, and has done a large practice among people who were generally both able and willing to pay their bills. He is a student, a hard working practitioner, and a good man, yet to-day he is in hard straits for means, and has to work hard in his old age in order to live. Not long since I saw a man of family and of means that this old doctor told me he delivered when born, and that he had never yet collected his fee.

Thus he has let his means be scattered about, and they will never be gathered in, and he is paying the penalty by still working hard when he ought to be enjoying a competency and leaving this hard work to younger hands than his. His methods have not only made it hard on him, but will also make it very hard on those who follow to institute better methods.

Why is it that the physician is usually a poor financier, and consequently a poor man? Is it because he is under the average intelligence? By no means, but rather the reverse. Is it because he is too busy with his patients and his books? Hardly ever, for with half the time he devotes to his favorite recreation or diversion, he could keep his business in fairly good shape. Is it because he is too indolent? Not so, for in a majority of instances he is a leader in every public movement for the advancement of his town or community, and often rides half the night to make up for time thus lost. The weather is never too hot, too cold, too wet, or too dry for the average country physician to betake himself to the bedside of a suffering patient.

Is it because he is timid or backward in his ways? Not a bit of it, for you will find him as firm as the rock of Gibraltar in enforcing his rules for the sick-room and for the conduct of a case to a successful termination. Is it because his mental capacity is insufficient to enable him to conduct his business in an orderly business-like way? The fact that in many cases he is a walking cyclopedia of knowledge, his capacity for storing away useful bits of knowledge and his ability to promptly produce them when needed, refutes this idea completely.

There are several reasons for this state of affairs: first, the irregular habits that are forced upon him by the uncertainty of the hours at which he is called; second, pure negligence; third, personal jealousies and distrust of other and competing physicians. It is a humiliating thing to have to recognize, but it is undoubtedly a fact that Dr. A. will say to himself, "Now, if I urge prompt pay, or seem in any way to require it, my patrons will quit me and employ Dr. B. or Dr. C., who never try to collect." And Dr. B. and Dr. C. will think the same way of Dr. A.

Gentlemen, the remedy, to my mind, is a simple one, and is in our own hands. The time has come when the public has a wholesome respect for the physician who boldly demands his reasonable pay for services which have been faithfully rendered. The world is much given to estimating a man's value by the value he places on himself. We have therefore only to give good and faithful service to our patrons, be earnest and painstaking in our efforts to relieve the distressed and cure the sick, and then when the case is ended render promptly a bill that will compensate us for the same, and firmly but quietly insist on payment, and this difficulty will be overcome. Let us be reasonable but just; be charitable, but don't let our bills grow old, for the older

they get the harder they are to collect, and the more trouble their collection will get us into.

If we follow out this plan we will soon be so much in advance of old Dr. Go-easy, who never tries to collect, that the good practice that is really worth having will be on the hunt of us instead of our being on the hunt of it, and our patrons will learn not to wait long to pay, but will come around promptly and hunt us up and pay us. In conclusion I want to quote you an extract from an article in the August Medical World, written by Dr. J. F. Griswold, of Portland, Conn., on this subject. He says:

"There are but few who know any thing about economy in order to pay their physician a reasonable sum for his services within a reasonable time. I think the greater trouble lies with the physicians. Too many of them appear too anxious to get a patient, too ready to cater to and wait upon every one, even though they get no pay, as if it were a great honor for their carriages to hang out at every one's door. You should refuse to attend unless paid for former services; and if they don't want you under that condition, sit down and put your feet up and rest yourself to be in readiness for the fellow who will pay; he generally appears. I have never oppressed any one in trying to collect my bills, and yet I am a good collector and have always had that name. My clients know I do business for pay, not fun. Be prompt with your bills and insist that they be paid in some way in a reasonable time. After nearly sixteen years of practice I am strengthened every day, from my observation of people, in the belief that we should collect our bills; not half the amount due but the full amount.

"Too many men make unnecessary visits and charge for only a part of them, so that when the bill is presented it appears that the doctor has 'discounted.' That is bad practice; charge for all visits, but make no unnecessary calls."

GLASGOW, Ky.

FORCEPS ROTATIONS IN OCCIPUT POSTERIOR POSITIONS OF THE VERTEX.*

BY WILLIAM GILLESPIE, M. D.

I recently had the pleasure of coming to your Society as a visitor and hearing a paper read by Dr. Stewart on forceps delivery in occiput posterior positions of the vertex. While Dr. Stewart did not advocate forceps rotation, yet several members of the Society took occasion to question its advisability. They did not go into the subject, however, sufficiently to state their objections plainly. As I was interested in the subject, had used the forceps several times to accomplish rotation, and had been unable to find sufficiently good reasons for discontinuing the practice, I concluded to bring the subject up again, hoping to profit by the discussion. It is stated, on authority that I do not question, that all but four per cent of occiput posterior positions of the vertex will rotate anteriorly if proper flexion is secured and time given for nature to mold the head for her purpose.

In looking up statistics, however, I was struck with the fact that all of them were taken from the older writers, and had been collected at a time when assistance to the parturient woman was never thought of till nature had completely exhausted her resources. I seriously doubt if any prominent obstetrician of the present day can give, from his own experience, the per cent which nature can not rotate. Few men would subject a patient to hours or perhaps days of hard labor, and wait till nature had been completely exhausted before extending a helping hand. These statistics then are of no value, except to remind us that nature does attempt to rotate, and we should always give her credit for very efficient help. Any careful observer has occasionally seen the occiput rotate anteriorly above the brim in the cavity of the pelvis, and many times just before the head sweeps over the perineum. It can usually be said that so long as the relative size of the child's head and the pelvic canal are not out of proportion, descent occurs naturally, but when resistance is met, nature endeavors to overcome the difficulty by rotating, and thus presenting a narrower diameter. This is a very valuable hint from nature as to the proper management of these cases. We shall follow the rule laid down by Simpson in dealing with this subject: "In occiput posterior positions the

* Read before the Obstetrical Society of Cincinnati, February 18, 1897.

mechanism of the extraction of the head with forceps should be an exact imitation of the mechanism of the expulsion of the head by nature." No higher law can be laid down, and it needs only to be added, provided we can do this with the least possible danger to the mother and child.

When progress ceases, flexion being perfect, and nature does not seem able to rectify the position without exhaustion, it is our duty to render assistance. There are many ways of doing this, but we are only considering instrumental interference, which is always called in after failure of less active measures. Special care is called for in the application of forceps, and special care in using them after the application is made.

The head should always be grasped by its biparietal diameter when possible. This is easily accomplished with the head low in the pelvis, but when high in the cavity it is sometimes impossible. If compelled to grasp the head irregularly, the operator should remember two great dangers: First, his hold is necessarily insecure, and traction must be made with great care to avoid slipping of the instruments; second, if the handles are forcibly compressed, in order to retain the grasp necessary for forcible traction, there is danger of posterior rotation of the occiput. I once had this experience. The instruments slipping and the case demanding prompt delivery, I compressed the handles forcibly, and one blade grasping the forehead in front, and the other the occiput behind the center of the head, the forceps was converted into two levers and the occiput was rotated into the hollow of the sacrum. I was compelled to perforate before accomplishing delivery.

If the head has become wedged in the cavity of the pelvis and can not be dislodged with the hand or vectis, I think it would be wiser to rotate with the forceps than run the risks of slipping and posterior rotation from violent traction and compression. Acting on this belief, I succeeded three years ago in delivering a living child after failing to effect elevation with the hand or descent by traction. The patient was a primipara, aged twenty, giving birth to a large male child, O. R. P. After making traction as forcibly as I thought safe with an irregular application, I began slowly and without much force to attempt rotation. The head occupying the right oblique diameter with the occiput behind, the left blade was applied to the right side of the forehead, while the right blade secured a hold on the left side of the occiput. Proceeding slowly and with great care, on account of the edges of the

blades endangering the soft parts, the head was soon brought into and a little past the transverse diameter. Removing the blades and reapplying them to the opposite oblique diameter, the head was rotated into the second position and delivery was completed. A careful examination with Bim's speculum failed to show any lesion in the vagina. I would not recommend this procedure except in cases of extreme difficulty, and only then to one who possessed some little skill and much patience, for it is only by the exercise of great care, and proceeding slowly and without violence that freedom from danger can be secured.

In most cases, however, the forceps can be applied to the biparietal diameter. We then proceed as follows: Pull downward and backward, exercising much greater care than in anterior positions, and continuing the backward traction longer. Even when the forceps grasps the head regularly in these cases, an examination of the child's head reveals the fact that the tips of the blades are applied behind the ears, unless a forceps with excessive pelvic curve is used. As the head from this point back rapidly narrows, and as the distance between the posterior edges of the blades in most forceps is greater than that between the anterior, it follows that while the application seems regular, most of the force is exerted by the anterior edge of the blades, and any premature forward move of the handles will cause the posterior edges to plow up the recto-vaginal septum, if the forceps does not lose its hold entirely. Even when great care is used the forceps sometimes slowly slips backward. Therefore pull slowly and with greater care than in anterior positions, and examine frequently to see that the blades are still in proper position. The downward traction should be continued until the head rests upon the perineum. I usually continue this traction till the perineum is somewhat distended, and if the application has not been regular adjust the forceps to the biparietal diameter. The blades are then loosened, and by depressing the handles are made to assume a position more nearly parallel with the long axis of the head. Closing the blades and lifting the handles, you now strongly flex the head, and, bringing it down till the perineum bulges violently and the vulva is considerably dilated, you have the head in nature's favorite position for rotating. Grasp the forceps with one hand near the head and, making that a fixed point, slowly and without force move the handles in the arc of a circle to the mother's left in O. R. and P., to her right in O. L. and P. No force is required for this rotation; after the movement

is once started it requires to be resisted rather than assisted. You may now leave the case to nature or re-apply the forceps, but I have usually delivered the head with the forceps in the reversed position. This is accomplished by grasping the forceps with the right hand, near the vulva, and with the handles resting under the forearm lift the head over the perineum, assisting or restraining its advance, while with the left hand I shell out the head. During the rotation and extraction the blades are in exact contact with the head, and no danger is run of cutting the mother with projecting edges.

It is a close imitation of nature's method of delivering these cases, and thus complies with the law quoted from Simpson. It remains to be seen whether we have accomplished it with the least possible danger to mother and child. The principal objection given by writers on obstetrics, so far as the child is concerned, is danger of fatally twisting the spinal cord. When we come to consider the large number of cases delivered this way by nature's unaided efforts, and by abdominal palpation demonstrate that the body of the child does not follow the head in its rotation, and yet no harm results to the child, the thought presents itself, Why should artificial rotation, if carefully executed, be more dangerous than natural rotation? We have positive proof, however, that this fear is more theoretical than practical in the experiments of Tarnier: "From the experiments on many cadavers of new-born infants I have proved that when the head is twisted one half the circumference, the shoulders being fixed, the motion does not alone occur at the atlo-axoid joint, but throughout the whole of the cervical and a portion of the dorsal vertebræ, twisting spirally. In order to make the head thus rotate great force must be used, and yet careful dissection has failed to reveal the slightest lesions in the membranes or the spinal marrow. But it may be said, if the vertebræ are twisted the spinal cord must be compressed. To guard against this objection, I substituted for the cord a fluid column, connected with an external glass tube. Every compression of the canal caused the fluid to rise in the tube, and yet torsion of the head did not," etc. I think these experiments prove conclusively that danger from injury to the spinal cord as a result of forceps rotation is purely imaginary. I would ascribe a much more serious effect to the prolonged and severe flexion necessary for nature to successfully deliver these cases. I have seen several cases of convulsions in the newborn which I felt sure were due to cerebral apoplexy as a result of prolonged and violent flexion.

As we have considered that proper flexion has been secured before resort to forceps, it will not be necessary to consider forceps in the reversed position, as recommended by Richardson, of Boston.

The alternative usually recommended in place of forceps rotation is delivering the head face to pubes.

Grandin and Jarman, in their work on "Obstetric Surgery," advise that as soon as the forehead comes under the pubes the handles of the forceps should be depressed and the head forcibly extended until the forehead escapes. Then with the forceps, or with two fingers in the rectum, the head is raised over the perineum. This is a violent procedure, and, they add, "the perineum is almost certainly torn, and should be repaired at once." They say that later it is hard to resist the temptation to rotate, but we have only to remember the risks the mother would run from such a procedure and resist the temptation. As their procedure is so sure to cause serious laceration, I can hardly conceive of more serious results occurring from rotation with the head in this position.

Pajot many years ago proposed a procedure differing from the above in that instead of producing extension as the first step, violent flexion was secured and the occiput raised over the perineum. The neck then becoming the fixed point, with the perineum as fulcrum, extension completed delivery. This violent flexion, by bringing the soft top of the head against the pubes might endanger the cranial contents, and Charpentier, in commenting on it, says it almost certainly produces laceration of the perineum, and he therefore prefers to rotate with forceps when possible. That some cases can be delivered in this position without damage I do not doubt. I have myself seen four unaided deliveries in which no tear took place—three in multipara who had been previously torn, and one primipara with large vulva and very lax pelvic floor.

As the cases when I have used forceps as above described have shown no larger per cent of lacerations than anterior positions, I have continued to follow the practice rather than follow established rule and do plastic surgery. As the danger to the child from torsion of the spinal column seems to be proven by Tarnier's experiments to be in the imaginations of those who fear it, I have laid it aside until at least I find as good reasons for accepting the theory as I now have for rejecting it.

CINCINNATI, O.

OPHTHALMIA NEONATORUM.*

BY WARWICK M. COWGILL, M. D.

It is probably a true statement to say that the most prolific source of blindness among the human race is ophthalmia neonatorum. In the percentage of all cases of total blindness, as given by different statisticians, from forty to sixty per cent is due to this disease. These figures are startling; and when we consider the fact that this trouble is to a large extent a preventable one, it seems that every effort on the part of the profession, municipality, and State would be made to lessen its direful effects. There is no longer a valid excuse for allowing so many lives to be blighted from this cause. Medical science has done its part. We know the cause of the disease and the remedy. All that is lacking is the application in prophylaxis and remedial agents.

Every case is due to the direct infection of the conjunctiva by pathogenic germs, either at the time of birth or afterward, through the carelessness of the nurse, mother, or accoucheur, the germs being the gonococcus, streptococcus, staphylococcus or others, or an association of two or more of these germs.

The question as to whether the disease is due entirely to the presence of the gonococcus in the maternal genitalia is one of great importance, since if that were the case the physician in charge would be often thrown off his guard by concluding, without examination, that such and such of his obstetrical patients have not gonorrhea, and therefore there will be no need for extra precaution against the infection of the child's eyes. In many virulent cases of ophthalmia neonatorum the presence of the gonococcus can not be demonstrated. Chartres (*Archive Clin. de Bordeaux*, December, 1896,) claims to have demonstrated that the serious ophthalmias are those produced by streptococci or by an association of streptococci and gonococci, or by these two and others.

If this be true, then I say again it is extremely unwise, dangerous, and I might say culpable in the obstetrician, to work on preconceived lines (in the absence of previous examination), and say that in such and such a case there is no need for prophylaxis.

So it seems clearly demonstrated that purulent ophthalmia in the newborn is not wholly caused by the presence of a gonorrheal discharge, but also by other irritating discharges from the vagina. In fact all

* Read before the twenty-sixth annual meeting of the Southwestern Kentucky Medical Association.

vaginal discharges should be looked upon with suspicion and due precaution taken; and, as to the prevalence of vaginal discharge in pregnant women, it is a well-known fact that it is almost the rule, and these discharges are infectious to a lesser or greater degree in from twenty to forty per cent of the cases.

The most important step in reducing the baneful effects of this disease is prophylaxis. As soon as a woman finds she is pregnant and has a leucorrhœal or any vaginal discharge, she should place herself under the care of her family physician; the proper means should be carried out to render and keep the parts sterile, and especially should this be looked after at the time of confinement.

As to the child, to Crede is due the largest credit for having found an efficient agent against this disease and for having demonstrated its value. His method consists in carefully cleansing the eyes of the child as soon as it is born, and immediately dropping a few drops (five to ten) of a two-per-cent solution of nitrate of silver exactly on the cornea of any child born of a mother infected with gonorrhea. The same method is to be applied when any discharge exists in the mother. The silver solution in the above given strength can do no harm, but sometimes produces a chemical irritation of the conjunctiva, which should not be mistaken for the irritation of commencing ophthalmia. By this method Crede reduced the number of cases of ophthalmia neonatorum in the Leipsic Maternity Hospital from 7.50 to 0.50 per cent. Weeks, in his exhaustive and careful investigation of the germicidal power of various agents used in ophthalmic practice, found that nitrate of silver is the most effective of all the agents tested, so the efficiency of this agent is shown both in the laboratory and clinical work. Crede's method, from all I can find, is not practiced largely in this country. The idea seems to be that it is not necessary to subject every child to a procedure that may be somewhat unpleasant in order that a few may have actual benefit from it. Would it not be better to subject ninety-nine to the slight smarting of the silver solution than to have one child go through life blind?

Pardon me, if it seems an act of presumption in me to outline a course of procedure to those of you in active obstetrical practice. Presuming that the obstetrician has carried out all antiseptic precautions with himself and the mother, and instructed and seen to it that the nurse has clean hands and clean clothing for the child, as soon as the child is born let the nurse wrap it in a clean cloth—rag flannel—

and let the first thing she does be to clean the infant's eyes, using sterilized water, or a solution of boric acid applied with sterilized cotton or sterile cloths that have been previously prepared for the occasion. The cloths and the water that is used in washing the child's body should not come in contact with its eyes—this being the very minimum of precaution. If there is any discharge from the mother, carry out Crede's method in its entirety. And possibly would it not be better if the silver solution was used in every case? Many of our best authorities so advise.

As to the disease itself, as a rule it shows on the second or third day after the birth of the child, sometimes as late as the tenth or twelfth day. This difference of time is accounted for in two ways.

1. In the early cases the disease is due to gonococcus. In those occurring later the germs are either the streptococcus, staphylococcus, or these with other than the gonococcus.

2. The other explanation is on the ground that the germs are not different but their virulence has been attenuated.

The first evidence of the disease is a mucoid tear-drop in the inner canthus of the affected eye. By the third day the purulency is well marked.

The family and nurse should be informed at once of the contagiousness and gravity of the case. They must be fully impressed with the importance of careful attention to the child's eyes, and the carrying out of the instructions of the physician in charge to the minutest detail. It is best, almost a necessity, to have a day and night nurse in these cases.

As to the remedial agents, from the beginning to the end of the attack the eye or eyes must be kept clean, as free from the accumulation and retention of pus as it is possible. For this purpose the nurse should be supplied with a liberal quantity of absorbent cotton and some antiseptic solution, either one of boracic acid or a solution of formal, 1 to 2,000 or 1 to 4,000. I prefer the formal.

With a pledget of cotton saturated in one of these solutions the pus should be wiped from between the lids and the eyes irrigated at not greater intervals than twenty or thirty minutes, night and day. A fifty-per-cent solution of peroxide of hydrogen or a mixture of tannin, gr. 5; glycerine, dram 2; aqua, oz. 1, should be dropped in the eye three or four times a day to more thoroughly remove the pus. The edges of the lids should be kept well oiled to prevent their sticking together and damming the pus beneath them.

After cleanliness (I do not mean afterward in importance but in the

order of application) is the use of an efficient germicide. Of all agents tried so far in this disease nitrate of silver holds the lead. In the first stages of the disease it should be used once a day in the strength of from five to ten grains to the ounce. After suppuration becomes more profuse it can or should be used in greater strength, from fifteen to twenty grains to the ounce. The silver applications should always be made by the physician when it is possible, and care should be taken that the application is made thoroughly.

To control the swelling of the lids and retard bacterial growth have the nurse apply iced cloths to the lids for twenty minutes during each hour.

Should the cornea become implicated, which of course is the great danger, keep right on with the cleansing and silver, but substitute hot applications for the cold, and instill into the eye two or three drops of a solution of eserine, two grains to the ounce, three times a day. By so doing the tension of the eye is decreased, and a better circum-corneal blood supply encouraged to furnish more nutrition to the cornea.

I have not mentioned bichloride of mercury to be used in these cases, since its use in purulent ophthalmia in my hands has not proven it to be a desirable remedy. In the Eye, Ear, Nose, and Throat Clinic for April, 1897, Dr. Charles Abadie, of Paris, reports a number of cases where the cornea had been injured by the sublimate solutions used in the treatment of ophthalmia neonatorum. He says: "These complications consist generally in an infiltration, a whitish opacification occupying the whole thickness of the cornea, but rarely its whole extent. Taking on this whitish, milky aspect, the membrane seems to lose at the same time a part of its resistance, for its form becomes more globular. It is at first infiltrated, not ulcerated; it is only when one continues the applications of the sublimate instead of suspending them that the trouble goes on to ulceration and the cornea is ruptured."

As to the curtailment of this disease by State legislation, a number of the States of our Union have made it an offense punishable by fine and imprisonment for any midwife who fails to report, within six hours after the eyes become inflamed, to the health officer or to some reputable physician in the place in which she lives, any case of inflamed eyes occurring in a child she may have charge of.

I, for one, would like to see the same law in force in Kentucky, and would be pleased to have this Society put itself on record as favoring a law of this kind for our State.

PADUCAH, KY.

Reports of Societies.

CINCINNATI OBSTETRICAL SOCIETY.

Stated Meeting, March 12, 1897.

Dr. James Franklin Heady reported a case of Cephalhematoma.

The fact that Henning had 230 out of 53,506 births, or 0.43 per cent, Hofmohl, 371 in 59,885 births, or 0.6 per cent, and that this is my first case in about 1,000 births, is the apology offered for this report.

Fourth infant Davis, male, age eight days; was delivered on February 1, 1897, after a hard labor of twenty hours. The membranes remained intact until a few minutes before delivery. He is well developed, weighs seven pounds; deeply jaundiced. Situated over the occipital bone, extending from the superior angle to superior curved line, is a swelling about the size of a small orange. It is not discolored, not painful, but elastic on pressure. At the junction of the swelling with the bone a well-defined, hard ridge could be recognized. This lump was not noticed until February 2d, and has gradually increased until the present time.

March 8th. Child, five weeks old, general condition good. Jaundice has entirely disappeared. The swelling has decreased about one third in size, still elastic and not painful on pressure. The hard line at its junction with the occipital bone has increased. No crackling could be produced over any part of the swelling by pressure.

The evident cause of this swelling has been pressure upon the occipital bone by the cervix uteri. It was not a forceps delivery, and could not arise from that cause. In some cases it is difficult to give a good cause, as this has occurred in breech deliveries.

The treatment has been *nil*. I must confess the temptation has been very great to empty the contents of the swelling. This course would be supported by Winckel, Olshausen, and others. Henoch, Baginsky, Zweifel, Biedert, F. Koenig, and others condemn any operative procedure as meddling so long as there are no signs of inflammatory reaction or of suppuration.

Discussion. Dr. William Gillespie: I was rather surprised to hear Dr. Heady speak of cephalhematoma as so rare. My experience has not extended over a thousand cases by a good deal, and I have seen four cases of tumor of this character. In the first case there was separation. The periosteum was pulled loose from the bone. I opened it and washed it out and had a very good recovery. The three cases I saw afterward I simply punctured and covered with collodion, and had very good results. The books, however, say that is not good treatment, and we should not puncture, but let absorption take place. In the first case I had used forceps, and no doubt the bruising had something to do with the separation. I believe there is really a larger percentage of cephalhematoma than we are led to believe, and that it is often mistaken for a caput succedaneum. It is located in the same part of the head as caput succedaneum, and the mistake might easily be made.

Dr. M. A. Tate: Like Dr. Gillespie, I was surprised to hear that so few cases occur. I have seen two cases. One was a double cephalhematoma, and the other was one I saw not long ago in Newport. I let them alone, and a good recovery resulted in both cases.

Dr. Thad. A. Reamy: I have seen a number of these cases, and have treated them by both methods. I never open them at first, but have opened them subsequently. I have never seen a case that did not recover. The condition, of course, is almost invariably associated with a protracted labor, usually due to the causes that have been indicated by the author of the report. I think in most instances it is quite well to leave them alone. In many cases the contents are gradually absorbed; and, as even very simple operations on very young children are attended with more danger than in children who are older, I think it is well to wait usually and see if absorption will take place.

Dr. Julia W. Carpenter: I have had experience with but one case, and that recovered without any interference; it passed away in a comparatively short time. The size was that of about half a good sized orange.

Dr. C. B. Schoolfield: I have had about five or six cases of cephalhematoma in my practice, and in all of them except one I used the let-alone treatment, and they all recovered promptly. The first case I had I punctured and squeezed the blood out, and it promptly returned, and I did not puncture a second time. I do not think puncture is indicated unless there is suppuration or something of that sort.

Dr. G. S. Mitchell: I recall but one case that has occurred in my practice, and in that case the expectant plan of treatment was carried out. Like one of the gentlemen who has spoken, I am fearful that many cases of so-called caput succedaneum belong to the category. It is a little surprising to me in the cases reported that this condition of affairs could have occurred, owing to the fact that pressure was not very great and the membranes were not ruptured until shortly before delivery, which would preclude any very great amount of violence to the head. The case that occurred in my own practice was one of tedious and difficult delivery, a forceps case, in which the membranes had ruptured early and there was considerable disproportion between the pelvis and the head. The forceps was on for at least an hour. The swelling lasted for a number of weeks and finally disappeared.

Dr. W. H. Wenning: I came in rather late, but from the remarks I infer the paper was upon hematoma. From my own practice I would infer that this condition is somewhat rare, for I have never seen a case of caput hematoma. As regards the treatment of course I can only speak from what others say, and I would think the let-alone treatment would be the proper thing in the first place, and wait for absorption; if that does not occur, I do not see why we should not open the tumor and hasten the disappearance.

Dr. C. D. Palmer: I have seen a number of these cases, but have never seen one that did not spontaneously recover.

Dr. E. S. McKee: I have had two cases of cephalhematoma. The first was a very rare and interesting variety, viz., intracranial. Breech presentation; body expelled promptly, but head was slow enough to cause some apprehension before successfully delivered; multipara. Child well developed and hearty. Saw it every day, and it seemed to be doing well. On the fifth day was fretful, took convulsions, and died on the sixth day. *Post-mortem* twenty hours after death. Found skin normal, but between scalp and pericranium found a large effusion of blood, coagulated, extending over a greater part of the left parietal bone and not surrounded by any bony ridge. Opening the skull, found the bones in a perfectly normal condition, the dura mater healthy, but in the cavity of the arachnoid, and corresponding position to outer tumor, found a large and extensive clot of blood, causing a depression of the brain in its deepest part, which was one inch to the left of the posterior fontanelle; effusion larger than externally, extending down to the foramen magnum. No ruptured vessels could be found.

Other parts normal. Cause of death, intracranial cephalhematoma. This mother had three other children to die in convulsions. Might they not have had intracranial cephalhematomæ, and might there not have been an inherited tendency? Had this case been diagnosed *ante-mortem*, would trephining have been justifiable? This case was reported in the Lancet Clinic, Vol. II, 1883, p. 317.

The second case occurred about fifteen months ago, and was of the ordinary extracranial variety. I ordered pressure, and the tumor was dispelled. The child is now living and well. This was a rapid delivery, the child being born before my arrival. Mother a primipara.

Dr. Gillespie: I would infer from what I have heard this evening that cephalhematoma is generally regarded as coming on after the time of birth. The cases I have seen surely existed before birth, because the rim of callus thrown around the tumor existed at the time of birth. I think Charpentier says true cephalhematoma is due to pre-existing conditions, and not to a difficult labor at the time of birth.

Etiology of Malpositions of the Uterus. Dr. C. D. Palmer: Bear in mind that there is very little new to say on this subject.

What is a uterine displacement? A position of the organ out of its natural place. Now that definition, if it is correct, implies that the uterus has a natural place, and that when it is out of that natural place we have a displacement of the uterus. Everybody knows that the uterus is a very movable organ, and it is a wise provision of nature that it is such. If the appendages were diseased, as we often see them nowadays, and the uterus were not a movable organ, it would be much worse than it is. How could pregnancy go on if the uterus were not a movable organ? The uterus changes position with the respiratory act, with alterations in the position of the body, with the functioning of the bladder and the rectum, by sexual intercourse, and by pregnancy. The position of the uterus is very different when the woman stands erect, when she sits, or when she lies down, and the position of the uterus is different when the rectum or bladder is full and when empty. All of these changes are within the bounds of health, so none of them could be called uterine displacement. Now we can not accurately estimate the normal posture of the uterus when we take the dead subject, in whom there has been a supposed normal position of the uterus during life. If that body is frozen, of course there must be a change in the elasticity of the tissues. If you freeze any female body, and

keep the subject on the back, some change in the position of the uterus will take place. And no doubt the posture of the uterus is somewhat changed by the act of parturition. The posture in the multiparous woman is somewhat different from that of a nulliparous woman.

Now everybody realizes how much the uterus is changed in its position by the various postures assumed during any local physical examination. How different is the position of the uterus in the woman when you put her in the horizontal posture, in the Sims posture, in the Simons, or in the Trendelenberg posture. In my experience there is no posture of the body which enables us so carefully to explore the conditions of the pelvic roof and the internal genitalia as the Simons posture. So convinced am I, that I always use the exaggerated lithotomy posture whenever I desire to make a careful pelvic examination. And I can make a better examination at the third month of gestation in this posture to detect Hegar's signs than in any other. I am so confident of and depend so much upon Hegar's signs in this the third month that, if I do not find these signs, I am almost as much convinced that the woman is not pregnant as when I fail to hear the fetal heart sound later on.

The determination of the normal posture of the uterus and what is an abnormal posture implies a consideration of what holds the uterus in the normal and what puts it out of its normal posture. Of course all the ligaments have much to do with holding the uterus in position; and, above all, the utero-sacral ligaments are important. I do not believe there are any other ligaments comparable in strength in holding the uterus in position. They are composed of unstriped muscular fibers, and are but the continuation of the parenchyma of the uterus back to the sacrum. They pull, of course, the lower part of the uterus upwardly and backwardly, and, so acting, they naturally throw the upper part of the uterus downwardly and forwardly. That implies that the uterus is a lever of the first class. The power may be below or above, and the weight is at the opposite end, but the fulcrum always has a fixed point. This fulcrum is not at the junction of the body and the cervix of the uterus, but I think it is just above the vaginal vault. This part of the uterus is bound to the bladder as much as the bladder can hold it, and it is bound to the rectum in the same way. Here, too, the uterus is bound to the sacrum, and held by the vagina, the pelvic fascia, and the pelvic connective tissue and pelvic fat. The vagina has very much to do with holding the uterus in position, much more than

some would think. Being attached to the bladder in front, the rectum behind, and to the sides of the pelvis, it must hold the uterus. You can not have much displacement of the uterus without more or less distortion in place of the vagina; and, *vice versa*, there can not be much distortion of the vagina without some displacement of the uterus. The way in which the pelvis is related to the perpendicular line of the body varies with different women. If a woman is erect, the brim of the pelvis will describe with the perpendicular line of the body an angle of 140 degrees to 170 degrees. The greater this angle is, the more does the weight of the abdominal viscera, particularly the intestines, come on the top of the uterus and the back wall of the uterus. The more those weights are so directed the greater the predisposition to the anteversion of the uterus. Of course, the most potent influences in holding the uterus in the normal anteversion are the utero-sacral with the round ligaments. And I believe there is much in the so-called suction power of the abdomen. This suction is noted especially in women who have not undergone parturition, who have a round abdomen and an erect posture.

Now, what are the forces that tend to put the uterus out of posture? We ought to classify the causes under four general headings:

First, any thing which tends to increase the bulk and weight of the uterus leads to some displacement of the uterus. Congestion, passive hyperemia, and chronic exudations into the uterine wall—in fact any thing, it matters not what, which augments the bulk and weight of the uterus favors a downward displacement of the uterus at first, and, in time, some retroversion.

Secondly, relaxation and weakening of any of the supports, from lacerations, undue stretching, and diseases. It is almost impossible to have increased bulk and weight without some relaxation of support.

Thirdly, as everybody knows, any increased abdominal pressure from above may favor the displacement.

Finally, any increased traction from below may bring about a displacement.

It is impossible, it seems to me, for anybody to consider any cause which could not be classified under these four headings. This classification simplifies the whole matter very much.

Treatment of Malpositions of the Uterus by Pessaries. Dr. Thad. A. Reamy: What I have to say further to-night is exclusively upon retro-

displacement of the uterus. I do not believe that it was the intention, when I was assigned to this subject, that I should spend very much of your time, nor that I should make a speech or paper that should be extensive. But I wish to call the attention of the Society to the uses of the pessary in retro-displacements of the uterus. The causes of displacements are well known to you all. You can not have descent of the uterus without displacement. But now we have to deal with retroversion with the pessary. The pessary is ordinarily only an auxiliary to other treatment. The first thing the pessary does is to lengthen the vagina, and if it does not do that it is no account. So far as it may increase the angle of the vagina with the angle of the uterus and not cause discomfort to the woman, it aids in the treatment of retroversion. I refer here to the primary conditions; I shall later speak of a pessary which does not do that, but is of value in giving comfort in worse cases. But now we are speaking of a patient who is younger. The obligations of society, the foolishness of custom, have led so many young women to neglect to empty the bladder, or it is impossible for them to do it, and the bladder is kept inordinately full for many hours at a time, and this has a tendency to push the uterus over. Tight lacing and the destruction of the intra-abdominal pressure is another cause. But now we are speaking of a uterus that is retroverted. The vagina is not particularly distended. The utero-sacral ligaments have been stretched in every one of these cases to a slight degree. Now we are speaking of an acute case; therefore utero-displacement has taken place to a slight degree and there is a tendency for the little virgin uterus to settle down in the little virgin vagina. The introduction in such a case of the narrow Smith pessary, which can be done without rupturing the hymen, if the hymen is intact, which it is not in about half the cases in this country—excuse me for going outside of the subject, but so many young girls use the syringe to wash out the vagina after each menstruation that the hymen is very often not found intact. The hymen is now a thin organ compared with the hymen of the ancient Jew, in whom it was a sign of virginity on which even her life depended. But this pessary can be introduced, if carefully done, without rupturing the hymen. Put the woman in the genupectoral position; particularly at first place the patient on the side, because in this position you can repose and examine the condition better than upon the back. Then, having found the condition, repose the uterus before introducing the pessary. Then lubricate this pessary, carry it in and get it behind

the uterus. Now the little cylindrical virgin cervix fits into the pessary, the bulb of the pessary makes pressure upon the utero-sacral ligaments. This pressure pushes these ligaments up and makes them act as though they were shortened, and frequently sets up a little irritation; a little inflammatory exudation takes place and the ligaments become shorter. This pessary is self-supporting. It goes up behind the uterus and comes down between the pubic rami, and the downward pressure of the uterus simply acts as a leverage power to keep the pessary in place. It lengthens the vagina a little and holds the uterus in place. In this class of cases I have seen many; many cases in which the displacement was completely cured by means of this pessary.

In some cases you will find this pessary will not answer, but the little Hodge pessary will do better. This has the objection that temporarily it spreads the vagina a little, but you must use it very small. The pessary that goes in so tightly that it seems it can not come down is not the pessary to be used in these cases.

Now we will take up another class of cases. Here is the Albert Smith pessary, which you know is a modification of the Hodge pessary. The modification consists in narrowing one end and dipping it down, and it was intended to act as a swing to lodge between the sacrum and the symphysis. Now we are dealing with a uterus that is larger and in which the retroversion is more pronounced than in the class of cases to which we have just referred. The uterus has not been enlarged to such a degree that its weight and the retroversion make it impossible for us to repose the organ. But the woman has the discomfort of pressure on the rectum, etc. You carry this pessary up behind the uterus. The pressure then turns the pessary up so that it is self-retaining. This it does without fitting very closely. The treatment does not depend on the use of the pessary alone; the woman must go to the physician once or twice a week, the pessary must be taken out, the uterus reposed, and the pessary replaced. You may do every thing you could, if the pessary were not in, to improve the condition of the ligaments and change the woman's habits. You simply use this pessary, as a crutch on a broken limb, until it gets stronger. But do not let the pessary be too large, so as to stretch the vagina.

Let us now take another case. If the uterus is not fixed by adhesion, if it is simply a case of retroversion with the uterus not enormously enlarged, but a retroversion that will cause disability of the

woman and become unmanageable later on, and the woman has no laceration of the cervix, what would be the best treatment? If the uterus is not too large and the case has not gone too far, I know of no operation in all surgery so absolutely beautiful in its results and so easy to do as shortening of the round ligaments; but if you shorten the round ligaments and do not put a pessary in to hold up the weight of the uterus for several months, until the ligaments have become strong and the uterus has become accustomed to its position, you will find that the displacement will not be cured. It has been said that the round ligaments are intended as guy ropes. They simply keep the uterus from going too far, and do not act as direct supports originally. But after the Alexander operation this is improved. After the operation of trachelorrhaphy I am in the habit of using the pessary for two or three months. Repair the perineum and the cervix if needed, curette and pack if needed, and shorten the round ligaments if needed, and introduce the pessary at the same sitting, and you will probably cure the patient, which you will probably not do if you do not use the pessary. In the virgin, and in the cases I have mentioned of married women, I have frequently seen a cure effected with the pessary. In cases in which the uterus is very large it is very seldom that we get any benefit from a pessary as large as the one I now show you. When you can not get the patient to submit to an operation, you can sometimes get a good deal of comfort by introducing a simple ring pessary of large size. I have in several of these cases gotten a great deal of comfort, where I could have the patient under observation, by introducing four or five pessaries of this kind, of different sizes, scattered around the vagina in different directions, in a case of complete procidentia. I have a woman now, in Greensburg, Ind., who has been under my care for some time, who has not submitted to an operation, and with a hard rubber pessary of this character she has secured considerable comfort.

I could speak of the comfort that might be secured by an anteversion pessary, but the time now is short, and I will not now detain you, but take that up at some other time if you will permit me. The pessary not only will prevent the symptoms, but will help the woman to recover complete health in many cases; secondly, in a considerable number of these cases a permanent cure is secured; thirdly, where there are no adhesions, and you have made a trachelorrhaphy if necessary, you succeed in the permanent cure of retroversion and the con-

sequent descent of the uterus with other treatment, by using a pessary that is placed behind the uterus and lengthens the vagina. The primary use of the pessary, therefore, is to restore the normal angle between the uterus and the vagina. The pessary should make pressure, but not sufficient pressure to cause damage of the sacro-uterine ligaments. If you carry this pressure too far, you may get a neoplasm there that is very disagreeable. A pessary made of block tin and bent to suit each case is admirable and answers the purpose very well. Take a pessary in which the curve is not sufficient for your case, or not long enough, you can place the pessary in hot water and with a pair of forceps shorten it up without shortening the curve.

The other thing I wanted to say is to never introduce a pessary at any time for anybody unless you have a guarantee that you can keep your eye on the case, and if they break that guarantee you are not responsible. Never let it be said you left a pessary ten or fifteen years, until it was cut out by somebody. If the pessary causes inflammation, take it out. If you have to tampon the woman before using the pessary, do so; and if you can not use the pessary, don't use it. The right use of the pessary requires more skill ten-fold than to make a laparotomy, except some anatomical knowledge and coolness in using the knife.

Discussion. Dr. G. S. Mitchell: I was very much interested in the remarks of the second speaker, and I am certainly heartily in accord with his views in regard to the pessary. I know of no instrument that gives more satisfaction; I know of no procedure which affords greater relief in a large number of cases than the introduction of a properly adjusted pessary. Like the gentleman, I don't regard the pessary as a curative instrument in many cases, although I have frequently seen a radical cure follow the use of the pessary with other local treatment without any operative interference. I know there are gentlemen, whom we class among gynecological surgeons, who have no use for the pessary. These same gentlemen, with the same propriety and for the same reason, might say there is no use wearing a truss, and yet we do know a properly adjusted truss sometimes results in the cure of hernia, simply because it sets up an irritation that induces an inflammatory process that cures it. And the pessary, by causing a little inflammation, often cures these cases. Thus the pessary sometimes causes what a cellulitis sometimes does, and we have a pathological infection of

the uterus. That is what we have by the method which has been carried out in the operative procedure described by Dr. Hall; that is what we have by the so-called Kelley method and the so-called Alexander method of shortening the round ligaments. Of course, if we have a prolapsed ovary or an inflammation about the uterus, a so-called parametritis, endometritis, or perimetritis, we would not think of introducing the pessary. No one would introduce the pessary where there is already an inflammatory process. There is nothing will cause a heavy, boggy uterus, already in a state of congestion, to diminish in size better than holding it in proper position by a well-adjusted pessary. In the majority of these cases in which the pessary is to be introduced in retroversion in multiparæ, where there is more or less vaginal lesion and more or less injury to the pelvic floor, of course it is proper to make a vaginal colporrhaphy, an operation for cystocele, or trachelorrhaphy; and after all this is done, as an adjunct it becomes necessary oftentimes for a number of months, sometimes for a year, to introduce a pessary and hold the organ in proper position.

I have not had any personal experience with vaginal fixation, but I am satisfied that the men who first advised the so-called Dearson (of Berlin) operation have discontinued it. It strikes me the operation is not at all proper. Notwithstanding the gentleman has recommended it so highly to-night, I do not believe it is a proper operation; I know any operation could be performed by him with ease, he is such a dextrous operator, but the ordinary operator would find this operation one of more or less difficulty. I can hardly conceive of the operation not being attended with danger. After we have made the colporrhaphy and operated on the anterior wall, or whatever is necessary, it seems to me the best radical operation is to shorten the round ligaments. Alexander says one should not attempt this operation until he has made five or six such operations on the cadaver. It is a very difficult matter to pick up the round ligaments. The danger from hemorrhage is very trivial; and as to the formation of scars, that argument amounts to nothing at all.

Dr. Edwin Ricketts: When the question is asked, what is the normal position of the uterus, it can be answered a good deal in this way: What is meat for one is poison for another. The question of malposition is one in which I think there has been a good deal of unnecessary scientific speculation. In regard to the question touched upon by Dr. Reamy, that is, the version backward, in which he spoke of the dis-

tended bladder with the constipated habit and the disposition or indulgence in matters pertaining to society, he did not cure that patient until he had restricted or cut short, so to speak, the distended bladder business and had taken her out of society, and I believe the same end could have been secured by taking the patient out of society and regulating her habit, without the use of the pessary. These patients many times, in connection with relief of vicious habits, are often greatly relieved by being placed upon their face, especially at the menstrual time, for a specified time. I can not understand yet why so much is claimed for the pessary. I think that, theoretically speaking, it is very nice, but it is a good deal like a man lifting himself over a fence with his own boot-straps; and for a man to make the statement that the pessary is of itself riding easy, so to speak, without making undue pressure on one or two sides of the vagina, is a mechanical measure I can not understand. It has to have bearing somewhere for the uterus to ride, so to speak. The question of surgical interference for posterior versions, as suggested by Dr. Hall this evening, while I know it has been claimed by some gentlemen that the originator of this operation has discarded it, yet I do not think he has discarded it entirely. It don't make any difference about that; any gentleman who could have seen the operation in the hands of Dr. Hall as I have, and could have seen the result of those cases and the freedom from pain those patients have now in comparison with the pain they had previous to the operation for years, I am sure would be ready to give due credit to the operation. I do not care who goes back on the operation, I think we have a right for observation in Cincinnati as well as anywhere else. Whether this operation is to be the operation or not, it certainly is going to do away with the pessary. As to the position of the uterus as described by my friend, Dr. Reamy, which must be tilted forward in order that we may not have procidentia, of course that is correct. I do not think the anteversions amount to much as a rule; the retroversions are the ones we usually have to deal with. When these cases can not be cured by relieving the distended bladder and placing the patient on her face, when any thing is demanded I think the operation devised by the German gentleman is the one that will be considered more in the future than in the past. And you will be surprised how readily you can turn the uterus out, and the danger of hernia is practically *nil*.

Dr. Carpenter: I was glad to hear the favorable words from one of

such experience as Dr. Reamy upon the successful use of properly adjusted pessaries. We always like to hear something commended that we have succeeded with ourselves, and it has always seemed to me that those who condemn the use of pessaries wholesale are ordinarily influenced by seeing those used which are too large and where damage was done. Too many persons, especially those just graduating, have the idea that the pessary must stretch the parts in order to give support, and that is one thing that produces many bad results. A properly adjusted pessary is very movable and will not stretch the parts. If one will try it in that way in suitable cases good results will be secured. Whenever I read any thing on the subject of the normal position of the uterus I wonder where, in this age, they find the individuals in whom they can find that out—that is, in the adult. If you take a little child, of course you can get many of those who are in a state of nature; but when you come to the absolutely normal position in the adult in this age, I do not know where you can find it, unless those investigations are made among Indian women who are in a state of nature. You can find out what the *usual* position is, but whether that is *natural* or not is another thing, because in every nation the clothing of women is of such a nature as to make pressure from above downward, and whether the organs are now in their absolutely natural position or not is a thing to be very much questioned.

Dr. Wenning: It has been said, with a great deal of truth, that a pessary in a great many instances is a necessary evil, and certainly it is an evil in the hands of a great many individuals. I make these prefatory remarks because we all encounter cases in which the pessary has done much harm, but I think it is because so many have not the proper idea as to what the pessary is intended to accomplish. We should not simply introduce the pessary and send the patient on without further care. I have very little to add to what has been said on this subject. I am heartily in accord with what the second speaker said about the pessary with one exception, and that is the use of the ring pessary, which does what a pessary above all things should not do, and that is, it stretches the vagina. I have seen more ring pessaries in patients in whom the pessary was introduced by a practitioner not accustomed to introducing a pessary than any other kind of pessary. I need hardly mention the fact here that a pessary must exactly fit. If a pessary is too small it will do no good, and if it is too large it will stretch the parts. I think it requires a greater nicety to properly intro-

duce a pessary than to make even many of the major gynecological procedures, and it is only one who is accustomed to examining the uterus who can say what kind of pessary should be used.

One thing was not mentioned in the anatomy, and that is this: In my experience no pessary of any kind will do any good unless there is a normal rigidity of the uterus. When there is a pathological softening the pessary does often more harm than good. I think the uterus itself is the lever which is brought into requisition. If the cervico-vaginal junction is softened, if there is a pathological flexion, you invariably increase the trouble. So I think there must be a normal rigidity of the uterus before you can cure a version.

Now another thing, as regards the determination of whether a pessary is properly placed or not; of course, you all understand that for retroversion the proper position for the introduction of the pessary is the Sims position, so that you are sure you have the pessary in the proper position. Of course it is understood that the pessary can not correct the position of the uterus; the position of the uterus must first be corrected and then the pessary introduced. I first put the patient on her back and have her bear down, and then if I find the pessary is properly placed I examine the patient in the standing position and have her bear down, and am thus enabled to determine whether there is a proper mobility of the pessary. If the pessary is too small it will slip down into the vagina; and if the pessary remains fixed too tightly above it is too large.

Then there is another thing to be taken into consideration, and that is the abdominal pressure. I never have a woman wear a pessary for retroversion who has borne many children without having her wear at the same time a well-fitting abdominal supporter. I believe the relaxation of the abdominal muscles forces the uterus down on the pessary, and this continued pressure in the erect posture is likely to cause the trouble to return again. The proper adjustment of an abdominal supporter which will aid the abdominal walls in holding up the weight of the intestines is very important.

Dr. Schoolfield: I feel very much obliged to the last speaker especially for his remarks about the use of the pessary. I have had very little success with the pessary, and am not a strong advocate of it. His remarks, though, in regard to it I think are very applicable, and I think, too, that unless a pessary does fit as accurately as a shoe should fit it does no good. I think too many times the pessary is too long.

An ill-fitting pessary, and a great many of them are ill-fitting, being left in the vagina produces a great deal of injury and no good. I remember some time ago removing a wooden pessary, a round ring, left in the vagina something over a year, and it had so imbedden itself that I had to use an instrument and break the pessary in order to get it out. Of course that resulted from the lack of observation of the patient after the pessary was put in.

The question of the operations for the relief of retroversions is an interesting one, and those that restore the organ by replacing the conditions as nearly as possible to the natural are the ones which will do the most good. It seems to me the shortening of the round ligaments according to the Alexander method is the nearest to the physiological way of replacing the uterus in its proper position. The Mackenroth-Vineberg operations of replacing the uterus through the vagina will replace the uterus, but the drawing the uterus forward under the bladder, it seems to me, would cause a great deal of bladder trouble, and it would also cause the cicatrization of the anterior portion of the uterus, and would interfere with gestation in the same way that the ventral fixation does. I believe that ventral fixation is a delusion and a snare. I have done it and I have seen the results of it, and we see the reports of it in the journals, and I believe those who do the most of it are not the ones best satisfied with it. A good many operators who a few years ago did ventral fixation are now abandoning it. Alexander himself and Edibohls, who has operated perhaps the most frequently of any operator in this country by the Alexander method, seem best satisfied with their results. I have never seen the operation spoken of by Dr. Hall, but it seems to me that next to the Alexander operation it is the most plausible and reasonable method that we have, because it is a shortening of the round ligaments. But it seems to me that fastening the round ligaments to the vagina is drawing the uterus too much forward and interfering too much with the functions of the bladder. It seems from a physiological standpoint that the Alexander operation would certainly be much more desirable, although it is probably as difficult, if not more so, than the Alexander operation.

Dr. C. L. Bonifield: In regard to the use of the pessary, I think a mistake that is very frequently made, which interferes with getting good results from the use of the pessary, particularly in retroflexions, is that the curve of the pessary is too sharp; in fact they are usually too sharp when we buy them. They do not give pressure in the proper

place, and while we may push the uterus up in the pelvis, we do not straighten it out. I have gotten very good results by straightening the pessary somewhat. The Hodge pessary I have found very much inclined to turn around and get crosswise in the vagina.

In regard to vaginal fixation, I was in Berlin at the time Duerschein and Mackenroth were interested in this operation. I purchased a sound Duerschein devised to bring the uterus forward, and brought it home with me, but have not used it. I was at first thoroughly determined to do the operation, but upon considering it further I have not done it. My lack of familiarity with the German language rendered it impossible for me to get all out of what was said by Duerschein and Mackenroth. Mackenroth made his incision longitudinally with the vagina, while Duerschein made his transversely. I saw Mackenroth do the operation, and also saw Martin do it after the method of Mackenroth. I saw Duerschein also do the operation. Duerschein was in the habit of doing it in his outdoor clinic. After the operation the patient would wait in an outside room for two or three hours, and then he would pay her expenses home in a second-class cab. I examined several of these cases after two or three months, and the uterus certainly was anteflexed, but it possessed that disagreeable feature that the uterus always has after being fixed by any operation, that is, it is fixed and not freely movable as it naturally should be.

Dr. Hall (in closing): I believe where we differ largely on the pessary is the selection of the proper cases in which the pessary will do any good. If we do that we can relieve many of our patients, and the pessary then is just what the truss is, a makeshift for comfort, for temporary relief, and those of our professional brethren who do not use the pessary at all do not use all the appliances at our hand for the best interests of their patients.

Now a word in defense of my position in the paper. As to the gentleman who abandoned the operation, I will say he abandoned it on the same ground that Leopold and that school abandoned their operation, because there is too firm a fixation of the body of the uterus to the abdominal wall. Interference with the rise of the uterus in pregnancy followed the early operations. The new operation, and the one I was trying to describe to-night, is not such an extensive fixation. When you are through the operation it is brought forward and tacked, so if the woman becomes pregnant the uterus can enlarge just as if the woman had not been through the operation. One man reports seven

cases in which the women went through pregnancies all right. I believe if any of my patients become pregnant they will go through as well as anybody as far as the operation is concerned. I have made the Alexander operation many times, and theoretically for bringing the uterus forward it is all right. Practically it is all right. It is the best operation for bringing the uterus forward, for that purpose alone; but the operative danger between the two operations is markedly greater in the Alexander operation. No one who has seen the results of the Alexander operation will doubt that there are a good many cases in which hernia follows this procedure, and a woman with two hernias is about as bad off as a woman with retroversion. I believe, if my wife had a retroverted uterus, before I would let her have an Alexander operation, with the danger of hernia, I would prefer to let her have the retroversion, and that is what I advise my patients. Of course, in a lean subject there is less danger of hernia than in a fat subject. Yet if the operation I have described this evening will do the same thing, as far as the result is concerned it is to be preferred to the Alexander operation, even though it is more difficult than the Alexander operation. The man who is used to doing this kind of work will do it all right. And you do so little injury to the woman by that operation—not one of the patients I have operated upon in this way has complained of pain and discomfort nearly as much as for a repair of the cervix or of the perineum.

Dr. Reamy: The very intelligent remarks of Dr. Wenning make it necessary for me to call attention to one point. The doctor is correct in his statement that the pessary does not act as a lever on the uterus, but the uterus calls into requisition the lever action of the pessary. The remark of Dr. Bonifield I have verified hundreds of times. This pessary is about the correct shape; it is almost straight. The other remark I wanted to make is in reference to the shortening of the round ligaments by the Alexander operation or some modification of that procedure. I am sure any man who thinks this operation is difficult is some one who got his conception from hunting for the round ligaments after they are flattened out. If he will go down between the sacrum and the symphysis and make a dissection, striking an inch or three quarters from the spine of the pubes, he will readily find the round ligament. I do the operation sometimes one way and sometimes another. Young Martin, you know, fastens it to the urachus if he can find it.

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THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

As everybody knows, Louisville will enjoy the honor of entertaining this far-famed society October 5th, 6th, 7th, and 8th, next. The energetic and efficient Committee of Arrangements have perfected all the fiscal and social preliminaries for the meeting, and the preliminary programme issued by Secretary Loeb numbers fifty-seven papers. These papers are by well-known physicians, surgeons, and specialists of the States of Ohio, Indiana, Missouri, New York, Arkansas, Kentucky, Illinois, California, New Hampshire, Iowa, Georgia, Michigan, and Pennsylvania.

The following announcement from Chairman Grant and Secretary Tuley, of the Committee of Arrangements, is pertinent:

The Twenty-third Annual Meeting of the Mississippi Valley Medical Association will be held in Louisville, October 5th, 6th, 7th, 8th, and the Committee of Arrangements solicits your aid and co-operation in making it a success. Already there has been much interest manifested, and a meeting of much scientific merit is assured, as evidenced by the preliminary programme which is inclosed.

The address in Surgery will be delivered by Dr. John B. Murphy, of Chicago, Ill., and the address in Medicine by Dr. John V. Shoemaker, of Philadelphia, Pa.

The meetings will be held in Liederkrantz Hall, corner Sixth and Walnut streets, where admirable arrangements have been made for the reception

of the members, while the auditorium where the meetings will be held and the exhibitors' hall are all that could be desired.

Titles of papers should be sent at once to the Secretary, Dr. H. W. Loeb, 3559 Olive Street, St. Louis, Mo.

The railroads have granted a rate of one and one third fare to those who will attend from out of the city, and the hotels will make special reasonable rates.

H. HORACE GRANT, *Chairman.*

HENRY E. TULEY, *Secretary of the Committee of Arrangements.*

AN EDUCATIONAL FEATURE.

We are pleased to learn that a capacious amphitheater, perfectly lighted by skylight and electricity, has been added to the equipment of the Louisville City Hospital for the purpose of enabling the students of the medical schools of the city to witness autopsies and pathological demonstrations upon certain cadavers which will be set apart for this purpose.

Autopsies held at other than regular hours will be advertised by notices posted on the bulletin boards of each school. A museum for the preservation of the specimens resulting from this work will be provided in the near future.

This department is under the care of Dr. Leon Solomon, pathologist to the Louisville City Hospital, and we are glad to learn that the new departure is in the main due to his influence and energy.

The opportunity thus afforded our students of medicine for familiarizing themselves with the microscopic features of fresh pathological lesions is of great value, and thanks are due Dr. Solomon for making it prominent in the teaching facilities of our city.

THE BRITISH MEDICAL ASSOCIATION.

For the first time in its life of sixty-five years this august body convened upon American soil. The profession in Canada doubtless feels highly complimented, and it appears that the irrepressible doctor of the United States has seized with wonted alacrity this opportunity to extend his acquaintance and disseminate his invaluable ideas. We doubt not that he got a respectful hearing, and it is to be hoped that

he did not make himself too manifest, as some of his contemporaries (the Medical News for instance) prophetically feared.

Reports at this writing are meager, but sufficient to warrant the conclusion that the meeting in Montreal was characterized by the reading of valuable scientific papers and earnest discussion of the themes by them presented.

Notes and Queries.

INTERESTING CUSTOMS OF ENGLISH PHYSICIANS WHICH ARE NOW OBSOLETE.—Up until the eighteenth century every physician wore a wig and carried a cane or stick as a badge or insignia of his calling; and no practitioner would presume to make a call or be seen in public without his mystic wand and powdered wig.

There is something in a stick or scepter which is associated with power or preternatural attributes or authority, which dates back to mythological times. Moses had his rod, with which he struck the rock and the waters gushed forth, Hermes the herald's staff, Mercury the caduceus, Æsculapius his wand, the Roman lictors (hence *licked*) their fasces—down to the mystic bundle of nine twigs, in honor of the Muses, which the famous Dr. Busby used, no doubt to increase the respect of his scholars for them. In the present time the court of St. James has its gold sticks and black rods, the House of Representatives its mace or badge of authority, and even the policeman has his stick.

The physician's cane was long, smooth, and varnished, with a heavy gold knob at the top; and the gold headed cane which Radcliffe, Mead, Askew, Pitcairn, and Baillie successively bore, is preserved in the College of Physicians of England. This cane differs from the physician's cane proper, having a cross-bar on the top, while the physician's cane had a knob which was hollow, containing a vinaigrette which the physician held to his nose when approaching a patient, thus protecting him from the poisonous exhalations of the patient. The stick itself was also practically used for the patient to grasp during venesection, tightening and relaxing the hold, thus increasing the flow of blood by muscular action of the arm.

The phlebotomist's staff is of great antiquity; it is to be found in an illuminated missal of the time of Edward I.

Fustigation, or beating with a stick, was believed for many centuries a sovereign remedy for bodily ailments as well as moral failings; and Antonius Musa used this method to cure Octavius Augustus of sciatica. Galen recommended it as a means of fattening. Gordonius prescribed it in certain cases of nervous irritability.

Desault used what he called "club-tincture" on a young man, as related by Sir Astley Cooper, while attending the lectures of Desault and Chopart at Hotel Dieu in 1792. A young man was brought in complaining of paralysis of the right arm. Desault, suspecting that the boy was shamming, said unconcernedly, "Take off your hat." The boy instantly obeyed. "Give me a stick," screamed Desault, and he beat the boy unmercifully.

Next to the cane the wig was the most important of his paraphernalia, Dalmahoy being the last to wear one in public. It was a magnificent creation of the peruke-maker's art, and was celebrated in a song of the period. Wadd, the humorous collector of anecdotes relating to his profession, wrote of him :

"Dalmahoy sold infusions and lotions,
Decoctions, and gargles, and pills,
Electuaries, powders, and potions,
Spermaceti, salts, scammony, squills.

"Horse-aloes, burnt alum, agaric,
Balm, benzoine, blood-stone, and dill;
Caster, camphor, and acid tartaric,
With specifics for every ill.

"But with all his specifics in store;
Death on Dalmahoy one day did pop;
And, although he had doctors a score,
Made poor Dalmahoy shut up his shop."

Henry Revell Reynolds, one of the physicians who attended George III, was the last of the silk-coated physicians; he was the Beau Brummel of the Faculty and dressed with the greatest care, refinement, and elegance.

Previous to the reign of Charles II physicians were in the habit of visiting their patients on horseback, sitting sideways, like women. Simeon Fox and Dr. Argent were the last presidents of the College of Physicians to go their rounds in this undignified manner. With "the Restoration" came the carriage of the London physician. In Queen Anne's reign no physician with the slightest pretension to a practice could manage without his chariot and four and even six horses. Although it was only in the reign of Charles II that physicians generally used carriages—though they were used as early as 1563—Stowe's "Survey of London" says of Dr. Langton in that year that he "rid in a car, with a gown of damask lined with velvet, and a coat of velvet, and a cap of the same (such, it seems, doctors then wore), but having a blue hood pinned over his cap; which was a customary mark of guilt, and so came through Cheapside on a market-day." The doctor's offense was one against public morals—he had loved not wisely, but too well.

The cane, wig, silk coat, side-saddle, and carriage of the old physician have been mentioned, and his muff we must describe. This was large enough to inclose his forearms and was made of fur, and during cold weather he used it constantly to preserve his delicacy of touch and nice sense of discrimination when estimating the arterial tension of his patients.

To get some idea of the amount of ignorance of the etiology of disease and of the physiological actions of drugs which physicians possessed during the sixteenth and seventeenth centuries, a glance at some of the prescriptions of Sir Theodore Mayerne, who died in 1655, is sufficient. This man was the most eminent physician of his time, and was physician to two French and three English sovereigns—Henry IV and Louis XIII, of France; James I, Charles I, and Charles II, of England. He recommended a monthly excess of wine and food as a fine stimulant to the system. (In these days this would look like encouraging periodical drunkenness.) His treatise on Gout, written in French and translated into English (1676) by Charles II's physician in ordinary, Dr. Thomas Sherley, recommends a clumsy and inordinate amount of violent drugs. Calomel he gave in scruple doses; sugar of lead he mixed largely in his conserves; pulverized human bones he often prescribed; and the principal ingredient in his gout-powder was "raspings of a human skull unburied." He had a "Balsam of Bats" as an unguent for hypochondriacal persons, into which entered adders, bats, sucking-whelps, earthworms, hog's grease, the marrow of a stag, and the thigh bone of an ox. He also believed in amulets and charms.

Mayerne died in 1655, and two years later Harvey was buried, famous for having discovered the circulation of the blood, the following inscription having been placed on a statue erected in the hall of the College of Physicians:

"The circling streams, once thought but pools of blood
(Whether life's fuel or the body's food),
From dark oblivion Harvey's name shall save."

Aubrey describes Harvey: "He was not tall, but of the lowest stature, round-faced, olivaster (like waint-scott) complexion; little eie—round, very black, full of spirit; his haire was black as a raven, but quite white twenty years before he dyed. I remember he was wont to drink coffee, which he and his brother Eliab did before coffee-houses were in fashion in London. He was as all the rest of his brothers very cholerique; and in his younger days wore a dagger (as the fashion then was), but this doctor would be apt to draw out his dagger upon very slight occasion. He rode on horse-back with a foot-cloath to visit his patients, his man following on foot, as the fashion then was; was very decent, now quite discontinued."

In the Gentleman's Magazine, vol. xx, for the year 1750, a detailed description and an engraving of a stomach brush may be found, which is in many respects like the gyromele now so popular. The idea of the inventor seemed to be based on the principle of the bottle-brush which was used to cleanse wine bottles before refilling. As we look through the pages of Paret, Sir John Hunter, and other masters of their art, we are lead to recall what Solomon said: "There is nothing new under the sun."—*Dr. J. Coles, in Therapeutic Gazette.*

HABITUAL ABORTION.—Charpentier (*Annales de Gynéc. et d' Obstét.*) dwells on distinct local conditions in otherwise healthy women free from syphilis, lead-poisoning, and other general disorders. First, he traces abortion to ill-developed uterus; in the infantile type, with its long neck and short body, the muscular coat does not readily soften, yet remains very irritable, contracting and expelling the fetus about the third month. This condition is rare, but may be readily defined. Next come displacements, and especially flexions. Charpentier insists that the spur at the angle of flexion hypertrophies, and greatly interferes with uterine development. Replacement of the uterus in its normal axis will, in many cases, allow gestation to continue to term. The third cause of habitual abortion is congestion of the body and cervix, due to idiosyncracies. General or local bleeding may prevent abortion. Corporeal or cervical endometritis is a very common cause of abortion. The use of the curette to the pregnant cervix has undoubtedly allowed pregnancy to proceed to term in many instances where the patient would have miscarried without such treatment. In short, the curette prevents instead of provoking abortion in these cases. Lefour applies intra-uterine stems to the uterus of a non-pregnant woman, who has suffered from habitual abortion, as he finds that such treatment overcomes the individual intolerance of the uterus, and makes it bear the presence of an ovum.—*British Medical Journal.*

AN ANTIVIVISECTION HOSPITAL.—We see it stated that a committee has been formed for the foundation of an antivivisection hospital from which "all vivisectors will be for ever excluded." No proposition could well be sillier than this; nevertheless, we shall be glad to see the attempt made to carry it out, for its absurdity will then be all the more evident. Let us see what and whom it will be necessary to exclude in order to be logical in the determination to derive no benefit from the labors of experimental physiologists and pathologists who are here stigmatized shortly as vivisectors. First and foremost it will of course be necessary to exclude the Listerian treatment, and to resolve not to profit by the researches of Pasteur and Lister and the antiseptic practice which is now so universal, and has been so beneficent in its life-saving effects. Of course, all those who object to profit by the teachings of experimental physiology and pathology must at once exclude the use of the stethoscope or any of the knowledge which the experiments on respiration of living animals by Boyle, and the sounds of the valves of the heart by Hope have brought to our aid in the treatment of heart diseases and lung disease. Properly speaking, and to be logical, no pulse should be felt, and the knowledge gained by Harvey's experiments on the heart and discovery of the nature of the circulation should be altogether kept out of view. Nitrite of amyl must of course not be used for the relief of the angina pectoris, for that is one of the most recent conquests of physiological experiments; neither must any brain disease be localized or operations for the removal of tumors be performed, for they

will be based on the knowledge gained by the researches of Ferrier and of Horsley. The use of antitoxines in the treatment of diphtheria, plague, pneumonia, erysipelas, or tetanus must of course be rigidly excluded. But first of all it will be necessary to find medical men of ordinary scientific standing, or, indeed, any medical men who would willingly exclude as far as they could (for none could wholly exclude) the knowledge and methods of treatment with which so-called "vivisectors" have so richly endowed the preventive and curative medicine and surgery of our day.—*Ibid.*

ENTHETIC DISEASE IN INDIA.—Lord George Hamilton has received an influentially-signed women's memorial, drawing attention to the serious state of affairs disclosed by the report of Lord Onslow's Committee, and expressing an earnest hope that the Government will take such steps as may be necessary to prevent the spread of disease in our Indian army. The first three signatories are Princess Christian, the Duchess of Connaught, and Princess Mary of Teck, associated with whom are many ladies of title and distinction; also the matrons of every big hospital in the metropolis. Miss Florence Nightingale and Mrs. Humphrey Ward signed with a reservation. The National Observer and British Review considers that the late debates in the House of Lords on the health of the army in India are to be welcomed as an indication that public opinion at last is beginning to recover from a malady almost as fatal as that whose ghastly ravages have been creating such a profound sensation. If we judge the question impartially on its own merits, it is impossible to doubt that, in some form or another, it is imperative on us to revive the legislation for checking contagious disease, which was, at the instigation of a body of impure fanatics, repealed, to the disgrace of the nation, some years ago. The original Acts may have had objectionable features. If that were so, the Acts ought to have been amended; and any amendments that were reasonable would have rendered them more efficient. The agitation which led to the acts in question being repealed was not in reality directed against details at all. It was directed against the end which the acts had in view, not against the means by which that end was to be achieved; and the only opposition which sane men need now fear will be opposition of the old kind, and will emanate from the old quarters.—*Ibid.*

ETIOLOGY OF ASTHMA.—Kuss (*Thèse de Paris*, 1897,) maintains that, among the various causes of true asthmatic dyspnea, the principal is a defective evaporation caused by a want of sufficient fluid in the epithelial cells of the pulmonary vesicles. This insufficiency of fluid must be attributed to the reflex affection, from various causes, of the vasomotor nerves governing the nutrition of the cells, and produces the same effect as a sudden and considerable reduction in area of the active pulmonary surface. The convulsive action of the respiratory muscles might easily be a consequence of this dyspneic condition. In the treatment of asthma (1) increased activity

must be given to the secretory powers of the epithelial cells by acting on the secretory (vasomotor) nerves; (2) the determining cause of the harmful reflexes must be obviated by various recognized methods; (3) the physiological and anatomical soundness of the alveolar walls should be maintained by appropriate nutrition.—*Ibid.*

PHOTOGRAPHING THE STOMACH.—Dr. Edward O. Schaaf, of Newark, has invented an electric light and camera for photographing the interior of the stomach. The invention is intended to assist in diagnosing obscure ailments, such as cancer of the stomach. He states that two weeks ago he was able to successfully photograph the interior of the stomach in a living person, and obtained a perfect picture of the pyloric mucous membrane. The great difficulty is in properly focusing the membrane. In the experiments upon dogs anesthetics were used, but the pictures obtained were unsatisfactory. The explanation of this lay in the movements of the stomach. The organ ascended and descended with the diaphragm at each expiration and inspiration. This trouble was overcome when the camera was introduced into the human subject, the patient holding his breath during the exposure of the film. No narcotics are required in individuals, there being no pain connected with the operation. Only five to eight seconds' exposure to the electric light is necessary, and for this length of time a patient can easily suspend respiration.—*Medical News.*

THE INFLUENCE OF THE ROENTGEN RAYS ON THE EYE.—At a recent meeting of the Paris Société de Médecine et de Chirurgie Pratiques (*Presse médicale*, June 30th,) M. Bardet, who had been much occupied with Roentgen-ray examinations, reported that he had suffered with impaired vision accompanied by scotomata, and that M. Meyer, whom he had consulted, had observed in both eyes traces of extravasation and a congested state of the retina, which he attributed to the action of the rays.—*New York Medical Journal.*

ARSENICAL NEURITIS.—Alfred Stengel reports a case in which this condition followed the administration of arsenic for chorea. The drug was given, in the form of Fowler's solution, for several weeks, beginning with three drops three times a day, the dose being gradually increased to ten drops. As soon as toxic symptoms appeared the arsenic was discontinued. Nevertheless the nervous complication occurred, coming on about one month later.—*American Journal of Obstetrics.*

THE GERMAN LANGUAGE.—Physicians and medical students who may wish to acquire a knowledge of the German language will find a competent instructor in Prof. P. C. Stahl, 240 East Market Street. Prof. Stahl is a teacher of long experience, and comes recommended by some of the best educators in the country. His references in Louisville are Dr. F. C. Leber, and Prof. S. E. Woody.

Special Notices.

DR. JOHN F. RUSSELL, in an article on emulsions, published in the *New York Medical Journal* of January 23d, enters a vigorous protest against gum arabic and tragacanth as emulsifying agents.

He says: "Fat is a necessary article of diet. When a physician prescribes oil or fat, he attempts to supply in a concentrated form what the healthy individual obtains embodied with his other daily food. He tries to supply a deficiency of food. Whether this deficiency be the result of less fat taken with the food, or an increased consumption within the body, is of no importance in this connection. The plain fact is that the individual lacks fat, and fat is essential to health. When the physician prescribes an emulsion of fat he further attempts to present the fat to the absorbing vessels of the bowel ready for immediate absorption. He prescribes a predigested food. Gum arabic and tragacanth are not foods. In former years gum arabic was regarded as nutritious. The United States Dispensatory for 1892 says: 'It has been used as a food, but has very little if any nutritive value.' Tragacanth is much more commonly used because of its cheapness. It is even of less value. It is insoluble in water, and passes with difficulty through animal membrane. And yet we are compelled, when prescribing an emulsion, to give not less than fifty per cent of these substances or mixtures which we know to be inert."

When writing this article Dr. Russell evidently did not know of the Egg Emulsion of Cod-Liver Oil lately placed upon the market by Parke, Davis & Co. This preparation is certainly the most valuable of its class ever directed to our attention. Contains no gum arabic, no tragacanth, but is emulsified solely with fresh eggs and flavored only with a fine quality of brandy. It contains full forty per cent of cod-liver oil. Cod-liver oil, eggs, and brandy; every ingredient a nutrient. It is all food. Examined under the microscope this emulsion shows as perfect and minute a division of the oil as in milk. It is exceedingly palatable—in fact, an ideal emulsion.

WHAT SCIENCE HAS DONE.—In the treatment of diseases of the eye, ear, throat, and nose science has made some wonderful advances in recent years. This fact is illustrated in no better way than by a visit to the Chicago Eye, Ear, Nose, and Throat College, recently established in the new Trade Building, 67 Wabash Avenue.

This institution, which numbers among its faculty many of Chicago's most eminent specialties in the treatment of diseases of the organs enumerated, has for its object the instruction in a post-graduate course of regular practicing physicians in the scientific treatment of diseases of the eye, ear, throat, and nose.

The college is open from 9 A. M. to 6 P. M. daily, and inspection of its methods is invited. We heartily commend the institution and its aims to the medical profession.

PEPSIN is undoubtedly one of the most valuable digestive agents of our *materia medica*, provided a good article is used. Robinson's Lime Juice and Pepsin, and Arom. Fluid Pepsin (see advertisement, this number), we can recommend as possessing merit of high order. The fact that the manufacturers of these palatable preparations use the purest and best pepsin, and that every lot made by them is carefully tested before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from pepsin.

BACKACHE.—It is with pleasure that I give you my experience with Sanmetto. Mr. B., aged forty-nine years, was a sufferer for years from backache, caused from inflamed and overworked kidneys. The pain was so great at times that an opiate had to be given to relieve it. I put Mr. B. on Sanmetto, teaspoonful three times a day. He has never complained of his back since. This has been three months ago.

J. HARVEY BLEDSOE, M. D., Gold Hill, Ala.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

LITHOTOMY.*

BY WILLIAM L. RODMAN, A. M., M. D.

Professor of Principles of Surgery and Clinical Surgery in the Medico-Chirurgical College, Philadelphia, Pa., and Professor of Surgery and Clinical Surgery in the Kentucky School of Medicine, Louisville, Ky.

The operative treatment of vesical calculi has ever been of surpassing interest to surgeons. At the outset we may safely say that other means of dealing with stone in the bladder avail nothing. It is impossible to affect them by dietary or medicinal treatment, or by both combined. Nothing short of removal by some form of operation is to be considered.

My colleague, Dr. Grant, has given the indications for and operative technique of lithotritry, and it only remains for me to give the different methods of performing lithotomy, with the indications for each.

It is, perhaps, safe to say that the operative treatment of no viscus has undergone more radical change in the past two decades than that of the urinary bladder. Twenty years ago, practically all stones were removed by lithotomy, and the perineal route was the only one considered. Now it is very different—a majority of vesical calculi are submitted to lithotritry, and of those lithotomized only a small per cent are removed by the perineal route.

Brilliant as was the history of this operation in the hands of the older surgeons and masters, it has been forced into a second position on

*Read at the May meeting of the Kentucky State Medical Society, 1897.

account of the superior claims of the suprapubic and more modern procedure. That in advancing we may have gone too far and exaggerated the advantages of the high route over the low I am willing to concede, for I have seen no statistics of any modern operator which surpass or equal those of Dudley and others of the older school, who practiced perineal lithotomy in all cases. To me it is clear that by a judicious eclecticism we may attain the best results.

It is not desirable for one operation to supplant the other, as each clearly has its field. It will be our duty to point out the indications calling for the several procedures.

The bladder may be entered in three ways: first, suprapubic lithotomy; second, median perineal lithotomy; and third, lateral perineal lithotomy. Other operations, as the bilateral, medio-bilateral, and recto-vesical are no longer practiced, and may be considered obsolete.

Suprapubic lithotomy is not, as many suppose, a strictly modern procedure, but its perfection and general adoption are, however, of very recent date.

The first operation was performed by Pierre Franco, in 1561, and was followed by death. Prof. Gibson, of Philadelphia, was the first American operator, his patient succumbing to peritonitis.

It was only when Garson and Peterson made their experiments on vesical distension and rectal tamponade, in 1878 and 1880, that it was understood that the anterior wall of the bladder was not only extra-peritoneal, but could be safely raised above the pubis and entered in search of stones and other foreign substances without fear of wounding the peritoneum.

Fehleisen, Pirogoff, Braune, Strong, and others, soon afterward demonstrated upon the cadaver the correctness of Garson's and Peterson's observations, and emphasized the advantage of rectal tamponade as supplementary to vesical distension. Schmitz, Trendelenburg, and others have seen fit to discard rectal distension as unnecessary if not dangerous. Undue and rapid distension has more than once caused rupture of the gut. Twenty ounces of fluid ruptured the rectum of a cadaver.

While admitting the danger of improper rectal distension, the writer is convinced that a moderate tamponade is not only free from hazard but of great value in the operation. It certainly pushes the bladder forward against the abdominal wall, and furthermore steadies

it until it shall have been reached and opened. Fehleisen's experiments are convincing to me that the peritoneum is also raised perceptibly higher above the pubis by rectal tamponade.

Now, against these advantages we have possible rupture of the rectum, which can always be prevented by slow and moderate distension, and a somewhat freer hemorrhage, venous in character, from interference with the circulation of the veins. This at once ceases when the bladder is opened, and I can not say that in many operations done by myself, or witnessed in the hands of others, that troublesome hemorrhage has been encountered in a single case. Therefore I believe the use of rectal distension to be of material advantage, and the contra-indications to its use count for nothing to a careful operator.

The preparation of a patient for suprapubic section should be as follows:

The bowels should be kept gently open for several days prior to operation and an enema used an hour before the patient goes upon the table. The hair should be removed from the pubis, perineum, abdomen, and thighs at the upper and inner aspects. A general bath should be given the evening before the operation, and followed by a soap poultice or bichloride applications to the abdomen, continued until the patient is anesthetized. Should the skin become sensitive, sterilized gauze dressing may be substituted.

The bladder should have careful attention for several days preceding an operation when practicable. Especially is this necessary in conditions of septic urine. Warm sterile water injections, followed by a ten-grain boric-acid solution, or a weak solution of silver nitrate should be practiced daily.

The urine should in all cases be sterilized by the administration of salol and boric acid, five grains each, given three times daily.

A light diet, consisting largely of milk, should be enforced for forty-eight hours before operation.

With these precautions danger from sepsis and kidney complications will be lessened, and they have been shown to be potent factors in all mortality tables of lithotomy cases.

The urine should be collected for a period of twenty-four hours, measured accurately, and its sediment carefully examined by the microscope. The presence of kidney disease, pyelitis, or ureteral disease in this way will be shown in addition to the almost invariable cystitis accompanying stone in the bladder.

Not only will a decision to operate or not operate sometimes be changed by the report of a competent microscopist, but the prognosis in any given case will be much influenced thereby. Often the choice of an anesthetic is determined solely by the supposed condition of the kidneys. As soon as the patient is anesthetized an empty rubber bag or Peterson's colpeurynter is carefully folded, oiled, and introduced into the rectum well above the sphincter, so that it lies in the hollow of the sacrum. This should be done by some one not otherwise assisting in the operation. The bag is not distended until after the bladder has been injected.

A sterilized Nelaton catheter is now introduced into the bladder, any urine which it contains drawn off, and the viscus injected with warm boric-acid solution. This should be allowed to flow away, and a second carefully measured quantity of boric-acid solution—ten or twelve ounces in the adult, proportionately less in children—allowed to pass slowly into the bladder from an irrigator. The use of a syringe is objectionable. The catheter is now withdrawn, a piece of rubber tubing tied around the penis, and the rectal bag gently distended with air or water.

An incision is now made in the median line, beginning one half an inch below the symphysis and extending upward two and a half to three inches. There is no linea alba to follow. The muscles, if not easily separated, must be cut through and as little tearing as possible practiced. In very muscular subjects a slight transverse section of the muscles at their insertion gives more room, but increases the liability to ventral hernia. The transversalis fascia is now cut through to an equal extent with the superficial wound. The prevesical fat is to be cut, and not separated and torn by blunt dissection, for by the latter plan urinary infiltration is favored. Any large veins are seen and avoided. Wide retractors properly used at this stage of the operation make identification of tissues easy. The bladder is recognized by its pinkish walls, rounded outline, and fluctuation within.

The peritoneum may occasionally be seen, and, if so, must be pushed up out of the way. Should it be incautiously cut before recognition it must be immediately sutured with fine catgut before opening the bladder. All hemorrhage is now arrested.

Assured of the safety of the peritoneum, the bladder is steadied by a hook, and a quick stab made into it with a sharp knife. Unless the thrust is made quickly there will be a hernia of the mucous membrane.

The incision in the bladder wall must be in the central line, from near its summit downward. The peritoneum is endangered by cutting from below upward. As soon as the bladder is punctured fluid gushes out. Hemorrhage usually ceases when the bladder is emptied. The severed walls are then seized by pressure forceps upon each side, and the organ held up and open in this manner. The rectal bag is emptied and the tubing removed from the penis. Sutures for holding up the bladder cut out, and time is lost in their introduction. Compression by forceps does no harm whatever, and is in every way more convenient.

The opening in the bladder should be sufficiently large to easily admit two fingers. The stone is now searched for and removed between the fingers or by suitable forceps. The entire cavity of the bladder is further explored for additional stones, tumors, enlarged prostate, etc. A second irrigation of the bladder should now be practiced to get rid of clots, debris, etc., as the calculus may be fractured in its extraction.

All intravesical manipulation having been completed, the question of dealing with the bladder walls arises. In old subjects always, and young ones usually, the bladder will have been so long in a state of cystitis that primary suture of the walls and dropping it back into the pelvis is not to be considered.

Two sutures of silk-worm gut should now be passed through the bladder wall on each side, including the abdominal muscles and all super-lying tissues. A fistula is to be established. The superficial wound is closed by additional gut sutures. A large drainage-tube (I prefer a new Nelaton of good size) is well introduced into the bladder, and to its free end is attached a long piece of rubber tubing, which conveys the urine to a receptacle beneath. Various forms of syphon drainage-tubes act well—Cathcart's being as good if not better than any other.

The wound is now covered with an antiseptic dressing, which should be changed as frequently as it becomes wet from urine. In a recent suprapubic operation for stone in an old man the drainage was so perfect that the dressing was changed only once in twenty-four hours, and it was then unnecessary, being always dry.

In children, whose bladder walls are usually in good condition, primary suture may be attempted. Interrupted sutures of chromated gut closely placed should include all of the bladder walls and the mucosa. Anticipating a probable leak, a small drainage-tube of rubber should be placed in the prevesical space and brought out at the

lower angle of the parietal wound. Mayo Robinson reports ten such cases with only one failure.

The writer has practiced this so-called "ideal method" in one case with partial success. A large encysted stone was removed from the anterior wall of the bladder in a boy thirteen years of age. The bladder walls were carefully sutured, and when the cavity was distended to test the suturing it was found to be perfect. A leak occurred at the lower angle at the expiration of the third day, and was due to a fault of my own, as I had gone to the country to operate and had failed to take chromated gut with me. The ordinary gut underwent resorption too quickly for firm union to occur. Convalescence was shortened, however, by a greater part of the union remaining firm.

Patients should be gotten out of bed in a week or ten days, as drainage is facilitated thereby. The fistula will close in from three weeks to as many months, owing to the condition of the bladder and the character of the urine.

It is perhaps expected that I should mention Senn's method of suprapubic section in two stages. The first stage of his operation in nowise differs from the technique already given down to the point where the bladder is reached. He does not open the bladder until the fifth day, by which time the fistulous tract will be covered over by granulation tissue, which will prevent infiltration of urine with possible sloughing. The bladder wall is punctured under cocaine anesthesia. While the operation is probably not without merit in cases of very septic urine, surgeons have been slow to adopt it. In truth, I have never seen it done.

Indications for Suprapubic Lithotomy. It can not be denied that in many cases the high route possesses palpable advantages. All large stones can more easily and more safely be removed with less damage to the bladder. Adherent and encysted stones can only be dealt with satisfactorily by this method. The calculus I pass around was adherent to the anterior bladder wall so that vessels passed into it, and its detachment (which was tedious on account of the intimate union) caused considerable bleeding. It would have been impossible to have removed this stone by perineal lithotomy or litholapaxy without doing considerable violence to the attached bladder wall.

Tumors of the bladder can be dealt with after the extraction of stones by this route. Enlarged prostates, now so frequently relieved by prostatectomy, can be best reached by suprapubic section. If the

prostate is not to be attacked it is still the operation of choice, for in such conditions high drainage is better than low.

Lastly, the mortality of suprapubic section in enlarged prostate is certainly less than perineal section—due to its less shock, less hemorrhage, better drainage, and less liability to kidney complications.

It is also an easier operation than perineal lithotomy, which I think partly explains its widespread popularity. Its chief disadvantages are ventral hernia, which infrequently occurs, and the establishment of a fistula which may be slow in closing or fail altogether to do so. Extensive sloughing may also occur in cases of markedly septic urine.

Mortality. Dennis' report of 127 cases operated upon by the suprapubic route gave a mortality of 9 per cent. White and Martin in their recent work place the mortality at 11.3 per cent in 159 operations. Horwitz, of Philadelphia, has by far the best results yet published, doing over 70 operation with 1 death.

Perineal Lithotomy. Of the several perineal routes to the bladder, only two, the median and lateral need claim our attention as the bilateral and medio-bilateral, recto-vesical, etc., are practically obsolete.

The median operation has been described and practiced in different ways, but the operation of Allarton has been most generally indorsed by surgeons.

For this operation the patient should have the same careful preparation as recommended for suprapubic section. The patient being brought to the edge of the table and put in the lithotomy position, legs flexed upon thighs and thighs upon the abdomen, a centrally grooved staff is introduced into the bladder and hooked under the pubis at a right angle, and intrusted to a trustworthy assistant who shall have nothing else to do.

The operator kneels, introduces the left index finger into the rectum (which must be empty) and touches the apex of the prostate gland with a long-bladed, double-edged scalpel; a puncture is made one half inch in front of the anus down to the staff, the posterior edge of the knife slightly cutting the apex of the prostate. The knife is now withdrawn gradually, cutting from below upward in such a way as to make a triangular incision; that is, cutting the membranous urethra least, the skin most. The right index finger now passes into the wound, is carried down to the rent in the urethra, and following the staff enters the bladder. The staff may now, but not sooner, be withdrawn. The finger soon detects the stone, and along side of it as a guide a lithotomy

forceps is introduced with closed blades. The blades are expanded, the stone is grasped, and by a rotary motion extracted.

When the bladder is entered fluid usually escapes. Should the stone not readily present when the finger enters the bladder, the left index finger in the rectum will discover it behind the prostate, and by lifting it up force it into the wound when it can be easily seized. There is little danger of hemorrhage in this operation, as the mesial line is followed. Carrying the incision too far upward will endanger the artery of the bulb. Unless the left index finger be upon the apex of prostate as a guide, the rectum may be wounded. This accident is more awkward than dangerous, as the wound heals readily in most instances.

The tissues cut in this operation are skin, superficial fascia, sphincter ani, central point of perineum, triangular ligament, membranous urethra, and apex of the prostate. No vessels of any size are severed.

The advantages of median lithotomy are its slight hemorrhage, small wound and rapid convalescence. Its disadvantages are, possible wound of bulb and its artery, wound of the rectum, and the ability to remove only small calculi through so small an opening.

Urine drains away freely through the perineal wound after the subsidence of swelling of the soft parts, which will occur within forty-eight hours. It is my belief that a sterilized Nelaton catheter of large size should always be introduced into the bladder through the perineal wound after the extraction of the calculus. Not only is drainage favored thereby, but the bladder can be irrigated with sterilized or medicated water as desired. Many do this, but as many do not.

Mortality. In 299 operations the mortality was 1 in $10\frac{1}{3}$ cases.

Lateral Lithotomy. No one can carefully study the history of this operation, which in former years was accounted the most brilliant in surgery, without joining in the favor shown it almost without exception by former great masters. It was preferred to all other methods, and practically had no rivals for favor until the perfection of litholapaxy and suprapubic section. It was in former times the crucial test of an operator's deftness, and he who could cut for stone with the most dash and brilliancy had an easy claim upon greatness. That it is the most difficult, fraught with more dangers and embarrassments than other forms of lithotomy are as unquestioned as its superior brilliancy. In the hands of skilled lithotomists, as Dudley, Gross, Joseph Pancoast, Briggs, and our own D. W. Yandell, results were attained by it

which I am compelled to say are hardly attainable to-day by as good surgeons who practice the operation so infrequently.

Suprapubic section is the fad of the hour, and, while its claims are mandatory in many instances, its field has been too greatly enlarged, that of lateral lithotomy too much restricted. Notwithstanding the greater popularity of the high route to-day, it can not be shown to have as low a mortality as lateral lithotomy had in pre-antiseptic days.

Could deaths from erysipelas, pyemia, and hemorrhage, which contributed so largely to the mortality of this operation when it enjoyed so high repute, be reduced to what they would probably be now with asepsis, the greater safety of lateral over suprapubic section would be still more marked.

Suprapubic lithotomy is now less dangerous by more than 50 per cent than it was twenty years ago. Then it was 1 death in $4\frac{1}{2}$ cases, now about 1 in 10.

Lateral lithotomy was fatal in 1 of every 8 cases, calculated from 8,509 operations done prior to 1875.

Fifteen operators, all skilled lithotomists, report 1,742 cases with 187 deaths, or 1 in $10\frac{1}{2}$.

Dudley operated 207 times with only 6 deaths, or 1 in $34\frac{1}{2}$. He had 100 consecutive operations—all of them with the gorget—without a death. His record has never yet been equaled. Gross cut 52 children, losing only 1. In 115 lateral operations he lost 10, or 1 in $11\frac{1}{2}$. 426 cases in the hands of American surgeons using the gorget gave a mortality of 1 in $23\frac{7}{8}$ cases.

Indications for Lateral Lithotomy. Although lithotrity is now claimed by its advocates to be as safe or safer in children than any cutting operation, statistics are not forthcoming to prove it. Lateral lithotomy is easily the safest operation up to puberty.

From puberty to middle age it is probably the best operation, unless the stone be very large, encysted, or the kidneys diseased. In any of these conditions choice is to be made between lithotrity and suprapubic section.

In old men lithotrity is much the safest operation, and when it is not chosen the high route should be for reasons already given.

The technique of lateral lithotomy is as follows: The patient should be prepared as heretofore described. Being anesthetized, he is brought to the edge of the table and placed in the lithotomy position. A staff, grooved in the left side, is introduced into the bladder, which should

contain several ounces of fluid, and then hooked under the pubis at a right angle, and intrusted to the chief assistant. The operator kneels or sits upon a stool at the foot of the table, and enters the knife to the left of the median line of the perineum, midway between the anus and scrotum. An incision one and a half inches long is made from above downward and in such a direction that its terminal point shall be about midway the anus and the tuberosity of the ischium, or a little nearer the anus than the tuberosity.

The incision divides the skin and superficial fascia, inferior hemorrhoidal vessels, and the superficial and transverse perineal vessels. The forefinger of the left hand is now introduced into the wound, presses the rectum backward, and rests upon the staff in the membranous urethra. The knife, guided by the left forefinger, enters the groove of the staff, and being turned outward and downward cuts the membranous urethra and left lobe of the prostate to the extent of one inch. The escaping fluid indicates that the bladder has been entered. The index finger is then carried along the staff into the bladder by a rotary movement, and when well in its cavity the staff may be withdrawn. Suitable forceps are introduced after the stone has been felt by the finger, the blades expanded, stone grasped and withdrawn slowly so as not to injure the neck of the bladder. The bladder is now to be carefully irrigated. Hemorrhage, should it continue, must be arrested by ligatures, hot water, and pressure.

The parts divided are skin, superficial fascia, hemorrhoidal vessels and nerves, superficial perineal vessels and nerves, posterior fibers of the accelerator urinæ muscle, transverse perineal muscle and artery, deep perineal fascia, a few anterior fibers of the levator ani muscle, compressor urethræ muscle, membranous and prostatic urethra, and a part of the left lobe of the prostate gland.

Should the incision begin too near the scrotum, the bulb and its artery are endangered; should the entire lobe of the prostate and neck of the bladder be severed, urinary infiltration will almost surely occur. The latter accident is likely to be followed by fatal peritonitis.

Primary suture of the wound made in lateral lithotomy has been attempted, but is a failure. The wound heals from the bottom and closes as a rule within a few weeks. It is dressed antiseptically.

There are many accidents possible in lateral lithotomy, the more important ones being wound of the rectum, cutting the artery of the bulb, possible injury of the pudic or its accessory branch, injury of the

seminal duct followed by impotence and sterility as in Hunter McGuire's case, and opening up the recto-vesical space and allowing infiltration of urine. All will be avoided with proper care and a knowledge of the anatomy of the perineum, without which no one should cut for stone by the lateral route.

LOUISVILLE.

**TEN SELECTED CASES IN WHICH CELIOTOMY WAS DONE FOR
VARIOUS CONDITIONS.***

BY HARRY J. COWAN, M. D.

The operations were as follows: (1) For traumatic peritonitis, median incision; incision and emptying of three loops of intestine; lavage of the peritoneum, drainage; recovery. (2) Hysterectomy for a very large uterine fibroid, extra-peritoneal treatment of the stump; smooth convalescence. (3) Removal of uterine appendages for pyosalpinx; prompt recovery. (4) Removal of uterine appendages for pyosalpinx; prompt recovery. (5) Removal of uterine appendages for pyosalpinx; prompt recovery. (6) Removal of uterine appendages for bleeding fibro-myoma of the uterus; rapid diminution of the tumor, followed by its complete disappearance after two years. This operation was followed by a ventral hernia, and at the operation for its repair two years after no trace of the tumor could be found. (7) For fibro-myoma and hydrosalpinx; slow convalescence; nervous symptoms for two years; final fair recovery, but no diminution in size of the tumor. (8) For appendicitis with abscess in a child three years old; prompt recovery. (9) For ventral hernia; patient remains cured after two years. (10) For lacerated penetrating wound of the abdominal wall and colon, profound shock lasting forty-eight hours; eventual smooth recovery.

These cases are selected in that (1) having reported to the society on previous occasions all of my similar cases which died, either as a direct result of the operation or following it, I have only those that recovered left; and (2) all the cases in this series have stood the test of time, most of them several years, and all have been under personal observation since the operation.

In all the cases the end for which the operation was done was attained: in nine convalescence and restoration to health was prompt, in

* Read to the Kentucky Central Medical Association, July, 1897.

one the patient was an invalid for two years after operation. Drainage was used in two cases, the general peritonitis and the appendiceal abscess. The wound was sutured with sutures passed through its entire thickness seven times, with buried sutures three times. In the former case silk was the material invariably used; in the latter silk was used once, and catgut with kangaroo tendon for the muscles twice.

The wounds united by first intention seven times without suppuration, twice by first intention but in the presence of stitch abscess, once the wound suppurated throughout. This latter case had been sutured in layers, the patient having a very fat belly. The stitch abscess occurred in those wounds in which silk was used, one in layers and one as a single interrupted suture.

There was one hernia occurring in a patient having an obstinate bronchitis. Morphia was given in four cases, in one for a bronchitis and in the others for pain. I give morphia after celiotomy whenever my patient is restless or in pain, and can see no ill effect therefrom; on the contrary, I find convalescence much more smooth in those cases in which this remedy is indicated now, when I meet the indication, than in the same class of cases when, in my earlier practice, following the emphatic teaching of certain leading abdominal surgeons, I withheld the drug except when absolutely forced to give it. In other words, I now make no distinction in this respect between celiotomies and other operations as regards the after-treatment, and have had no cause to regret it.

Some of these cases, either inherently or on account of some complication, are reported in detail.

CASE 7. Mrs. A., white, married for five years and never pregnant, I saw first March 13, 1893. She began to menstruate at thirteen years of age, was always regular, but suffered much pain both during, before, and after the flow. No previous illness except the exanthemata. Four years previous to her present trouble, after a fall, she was confined to bed for six weeks, during which time she suffered much pelvic pain and was unable to urinate without the catheter. Since this accident she has frequent attacks of irritable bladder.

About the middle of January, that is, about two months before I first saw her, she was suddenly attacked with severe intermittent pelvic pains which could only be relieved by large doses of morphia. Rest in bed for a week apparently relieved her; but after being on her feet several days the pain would return as severe as before, so that after

several such experiences she was content to remain in bed. There was no systemic disturbance. At my first visit I found a large, fat, flabby, anemic woman, who looked to be forty although only twenty-nine. The uterus was large, tender, movable, but not freely so; carried at the junction of the body and neck a fringe of small fibroid tumors, and was pushed far over to the right by a tender, obscurely fluctuating mass on the left. Diagnosis, hydrosalpinx and small fibro-myoma of the uterus. Removal of the appendages advised and accepted.

Operation May 9th, assisted by Dr. George Cowan and Dr. Howard Kincaid. Left tube and ovary were densely adherent, forming together a cyst, about the size of my fist, which contained a sterile, chocolate-colored fluid. Right appendages atrophic and densely adherent; both removed. Wound closed without drainage.

This patient's convalescence was rough. One ligature became infected several months after the operation and was removed by a second operation. She menstruated irregularly for several years and suffered much from nervous symptoms; the pain, however, was relieved, and she was able to do house-work. It was only after four years of semi-invalidism that I considered this woman restored to a fair degree of health. The fibroids have remained stationary, but are now giving no trouble.

CASE 2. B. S., a negro, thirty-five years of age, multipara—youngest child seventeen years old—consulted me September 5, 1892. Her first deviation from health occurred ten years previous, at which time she began to suffer from prolonged, profuse, and difficult menstruation, difficult locomotion, and leucorrhea. These symptoms had grown progressively worse, so that at the time of her visit to me she was unable to work. For several years, exactly how long she could not remember, a central abdominal tumor had been plainly evident.

Examination showed a symmetrical uterine tumor reaching to the umbilicus. It was hard, smooth, except for two small subperitoneal nodules, and freely movable. As the woman had very little intelligence and was utterly unable to say whether or not the growth was increasing in size, as the symptoms were not alarming, as the general condition was good and the age such that we might expect it possible for her to carry the tumor without danger to the menopause, I sent her home, requesting her to return in six months.

She returned the following May. The growth had then almost reached the ensiform cartilage, and was soft at the top over an area as large as the double fist. This rapid increase in size, and especially the

evidence of beginning cystic degeneration, seemed to me to be absolute indications for a radical operation. Accordingly, with the assistance of Dr. George Cowan and Dr. Monfort, I removed the uterus, treating the stump extraperitoneally. For the first two days the patient suffered much pain, and according to the technique which I adhered to at that time morphia was withheld, so that she had quite a hard time. After this, however, the pain subsided and convalescence was smooth. Wound healed by first intention; stump separated on the eighteenth day, leaving a deep funnel-shaped cavity which rapidly filled up, so that at the end of the fourth week she went home with only a small, superficial unhealed area.

I have seen this woman several times since, the last time about two years after the operation. she was then well and strong, the wound was intact and had no point of weakness; over the site of the stump was a depression not unlike the umbilicus; all that was left of the uterus was the vaginal cervix, perfectly movable and about the size of the last joint of the thumb.

Total extirpation, I am willing to admit, is a more ideal procedure, but the results are no better than those which follow the operation with the *serre-nœud*, and the latter has the advantages of ease and rapidity, advantages which no surgeon, it matters not how great his experience, need despise.

CASE 6. B. M., aged thirty-two, came to me December 24, 1891, for an abdominal tumor, for which her physician had advised an operation. She had been married a number of years and had never been pregnant; she complained of pelvic pain and a rather profuse metrorrhagia. Examination revealed the uterus midway between the symphysis and the umbilicus, with several large subperitoneal growths projecting from it. She had a nasty chronic bronchitis which did not yield to treatment, in consequence of which I was loath to do a radical procedure, contenting myself with a curettement. She was better for a time after this, but returned in a year, the neoplasm having in the mean time increased much in size and the hemorrhage being more profuse than ever before. The bronchitis remained unrelieved, but the symptoms were so urgent that I considered castration justifiable.

This was done in February, 1893. The fundus at that time was above the umbilicus, and besides two large pear-shaped submucous tumors many smaller ones were observed. Recovery was prompt, despite the fact that much morphia was given for the very obstinate

cough. This case first taught me the innocuousness of morphia after sections, for, notwithstanding the large quantity I was forced to give, convalescence was very smooth. This experience I have verified in other cases.

In this case the neoplasm rapidly diminished, so that at the end of six months the uterus was of normal size and the projections could not be felt. Two years after I repaired a ventral hernia which had formed in the wound. With the hand in the belly I could not find the slightest remains of any abnormal growth.

CASE 10. On October 14, 1894, L. C., a girl twelve years of age, white, fell from a very considerable height upon a sharp-pointed fence picket, causing a penetrating wound of the abdominal wall. I saw the case two hours after the injury. The child was profoundly shocked, having a blanched, pinched face and a failing pulse. The skin wound ran from the anterior superior iliac spine transversely to the other, this large flap being separated from the muscles as high as three inches above the umbilicus. The muscular wound was perpendicular to this, extending from a point midway between the symphysis and the umbilicus upward to within a few inches of the ensiform cartilage; through this immense wound a large mass of intestine protruded. The transverse colon was torn in two places and its mesentery much lacerated. There was no fire in the house although the weather was quite cool, so that it was not surprising that the child should be profoundly shocked.

By the time I had completed my examination Dr. George Cowan and Dr. Monfort arrived, and, not even waiting for hot water, we anesthetized the patient and proceeded to repair the injury. The intestines were wiped with dry sterile gauze, the lacerations closed with Lembert sutures and returned. In preparing the abdominal wound for suture it was found necessary to make a skin incision over the wound in the muscles, thus converting the entire skin wound into the shape of an inverted T. Even then, the left rectus being torn entirely across and also partially out of its sheath, and the edge of the peritoneum ragged, the abdomen could only be closed by using three layers of sutures. This was done, using silk for all three layers because no other material was at hand. Patient left the table without a radial pulse, and her condition was alarming for forty-eight hours, after which she rallied, making a good convalescence, it being marred only by suppuration around several buried stitches. The large wound healed by first intention and

at this time, over three years after the injury, the cicatrix is strong and shows no weak point.

The technique of abdominal surgery should be extremely simple ; no instruments beyond those absolutely required for the procedure contemplated should be laid out. A scalpel, two hemostatic forceps, one pair of dissecting forceps, a half dozen straight needles, several yards of silk and a few gauze pads, form an armamentarium with which most operations can be completed. No chemical solutions are necessary; fire, water, and soap can be made to fill every aseptic requirement.

We often read complaints of the difficulties of operating outside of hospitals, but these difficulties are such that they can be overcome by due diligence on the part of the surgeon. I appreciate as much as any one the convenience of skilled assistance and well-appointed operating-rooms, but all the enameled iron, plate glass, and tiled work in the world can not do good surgery, neither should the want of them prevent it. Surgical luxuries, like all other luxuries of life, are desirable, but we get things out of focus when we begin to consider special operating-rooms as necessary to success, or in fact as having any bearing upon the ultimate result of our work. The surgeon is the thing; in whatever house he can get fire and water, there he can do as successful work as in the most palatial hospital ever constructed. The history of surgery teaches this; many of our best hospital surgeons have made the reputation which established them in a house to house practice, and have done in this way the best work of their lives. There are really many advantages in operating in private houses, chief of which is that the patient is not herded with many others, so that a lapse in technique is not so apt to be followed by infection.

If it is a fact, I do not assert it, but if it is a fact that better results follow surgery in hospital than in private practice, it can be due to but one cause, that better surgeons are doing the hospital work, and the sooner those of us who are doing surgery in private houses recognize this and cease to assign our failures to difficulties which should be surmounted, the sooner will our results improve.

DANVILLE, KY.

Translations.

GASTRALGIA AND DYSMENORRHEA IN A NEW CONNECTION.

BY JAMES B. BULLITT, M. D.

I. Fliess, Berlin (*Wien. Klinische Rundschau*, No. 1, 1895), states that gastralgia and dysmenorrhea, in which a distinct nervous element can be said to play an important rôle, are dependent for their phenomena on changes in a locality far removed from the seat of their manifestations, this locality being the nose. He has succeeded every time the experiment has been tried in curing gastralgia and dysmenorrhea by treatment of the nose. He believes there exist in the nose certain points of localization for distant functional disturbances, just as there do in the cerebral cortex. Beginning with a consideration of the nervous stomach-aches, he finds the point of localization in the nose to be, for this affection, the anterior third of the middle turbinated bone on the left side; for if in a case of nervous cardialgia, and the statement only applies to such cases, the anterior third of the left turbinated bone be removed, the patient is permanently relieved of his cardialgia. Further, if, when such attack occurs, the aforementioned portion of the left turbinated bone be painted with a twenty-per-cent solution of cocaine, the pain is relieved completely in five to eight minutes, not returning until the local effect of the cocaine has ceased to act.

The following cases are reported as in point:

CASE I. Girl, twenty-two years of age; has suffered for about seven years with migraine and gastralgia, the latter coming on generally one week before the menses, but also at other and irregular periods, lasting sometimes a few hours, sometimes one or two days, the pain being very violent.

On the 19th of May, 1893, she suffered a violent attack of gastralgia. The anterior third of the left turbinated bone was painted with a twenty-per-cent solution of cocaine, and in five minutes thereafter the patient was completely free of pains. Further treatment at the time was purposely avoided. On the 30th of May, three days before the beginning of the menses, there occurred another violent attack of gastralgia. Cocainization gave again immediate relief, just as on the

10th of May. Trichloracetic acid was applied to the nose, but this did not prevent another gastralgic attack on July 3d, the day when the menses should have appeared; the flow made its appearance a week later. Again the cocaine was applied as on the two former occasions, and with like good result. With the bone forceps the anterior portion of the left middle turbinated bone was now removed. The further progress of the case showed that the portion removed was not extensive enough to prevent a recurrence. At that time Fliess had not definitely determined the localization. However, after this operation there was no return of the gastralgia for nine months, only appearing again at the end of March, 1894, shortly before the period, and after that recurring frequently.

In the latter part of May, eight days after the beginning of the period, the patient was attacked with the pain again while on the street, and with such violence that she was compelled to seek a neighboring house, being unable to proceed home.

On the 5th of June the remaining piece of the "stomach point" (*Mangestelle*) was removed from the turbinated bone; since that time and up to the end of December, 1894, there has been no recurrence of attacks. It is to be emphasized that before this treatment the patient had never had so much as four weeks of freedom from these painful attacks since their beginning, seven years before, so that the respite of nine months following the first operation was an entirely novel experience to her.

CASE 2. Woman, aged fifty-five, suffered daily from gastric pains since October, 1893, pain gradually growing worse and worse and finally becoming unbearable. The gastric pain had followed an acute disease, said to have been influenza. A careful physical examination, which here, as in all the following cases, was made, failed to disclose any cause for the gastric pains. On November 17th, during height of paroxysm, the anterior third of the middle turbinated bone, which appeared somewhat thickened, was cocaineized. In five minutes the pain was completely relieved. Trichloracetic acid was again tried in this case, giving only partial relief until December 4th, when a severe attack occurred. The cocaine application gave some relief as previously. The anterior third of the middle turbinated bone was now removed with bone forceps. This gave complete relief, there having been since no return of pain.

CASE 3. Girl, twenty-five years of age, began menstruating at seventeen years; this was painless for a year, and then (in the

eighteenth year) began dysmenorrhea. The abdominal pains began with the appearance of the flow, lasting as a rule six or ten hours, and being so violent that the patient would be unable to lie a-bed during the time. At the same time she suffered from left-sided migraine and gastric pains; these recurred sometimes daily, and were frequently fearful in their intensity. These gastric pains ceased entirely from her nineteenth to twenty-second year, during which time she continued to suffer the abdominal pains at the period, and sometimes headache. In her twenty-third year (1891) pain began to occur in the legs, in the left arm, and in the left shoulder-blade; she was unable to lift any thing. The gastric pains recurred with violence from October, 1892, to January, 1893, always most violent a few days before the period, bearing no relation to the ingestion of food, and ceasing suddenly. The patient sought Fliess' assistance on December 30, 1893. Physical examination gave no information; likewise the nose presented nothing abnormal, although the patient gave the history of having suffered frequently from occlusion of the nasal passages, especially following cold feet. During one of the painful paroxysms the anterior third of the middle turbinated bone was cocaineized; within five minutes all pain was gone. Purposely no further treatment was given. The pain remained absent for a day and then recurred, though not so severe.

On January 12, 1894, patient appeared with announcement that for a number of days the gastric pains had been fearfully severe, and lasting on each occasion several hours. The same locality was cocaineized; in five minutes pain was completely relieved; thereupon the anterior third of the left middle turbinated bone was removed with the bone forceps. From the moment of the operation all gastric pain disappeared. On February 3d the patient experienced a "gnawing" sensation in the stomach; she did not know whether to characterize it as hunger or as pain. Examination of the nose disclosed a small granulation tumor at site of the amputation. Removal of this and cauterizing the spot with trichloroacetic acid relieved the sensation completely. Since this time the patient has remained entirely well.

CASE 4. Girl, nineteen years of age. The patient was somewhat anemic, but physical examination showed all organs healthy. For fourteen days immediately preceding consultation she had daily gastric pains, and in addition thereto for the last three days continuous colicky abdominal pains. In the nose was found a polypoid growth on the anterior third of the left middle turbinated bone. The growth and its

base were cocainized, and in a few minutes the pain disappeared. Experimenti causa, the growth was not removed, but simply cauterized with trichloracetic acid. Two days thereafter (January 16, 1893,) the growth and its base were removed. A considerable hemorrhage rendered a tampon necessary. In five days she returned, complaining of gastric, abdominal, and head pains, profuse perspiration at night, and chilly sensations by day. There was considerable pus discharge from the nose, and during the past four days she had had four or five diarrhetic movements daily (pus resorption). The tampon was removed, and immediately the gastric pains disappeared. A spina septi which bored into the lower turbinate was now removed under cocaine, and from this time forth all the abdominal (colicky) pains disappeared too.

CASE 5. Man, aged thirty-five, masseur; for ten months previous almost daily attacks of gastric pain, lasting frequently many hours, and so severe as to cause fear of death. Polypoid growth on left middle turbinated bone removed; relief only partial; further removal of more extended area of anterior third of the middle turbinated followed by complete disappearance of gastric pains.

CASE 6. Widow, aged forty. History of many ailments during childhood, of which abdominal pains were most distressing. From her twenty-third year she suffered more or less severely from gastric pains. The left middle turbinated was found swollen anteriorly. Painting with cocaine relieved pains temporarily; on their recurrence the anterior portion of left middle turbinated was removed, followed by complete relief.

CASE 7. Woman, who since thirteenth year suffered severely from dysmenorrhea. First had gastric pains in seventeenth year. After her marriage, in twenty-second year, these gastric pains became more frequent, and showed a distinct connection with menstruation. They had continued regularly until the menopause. With increase in age the pains became more frequent and severe. Between the births of the first and second children she enjoyed a year's freedom from attacks; also for one year after the menopause; then the gastric pains began anew. Painting with cocaine relieved temporarily at once; cauterization with trichloracetic acid relieved for two months. In November, 1893, the gastric pains (*Magenkraempfe*, stomach cramps,) were extremely violent for four days and nights, necessitating injections of morphine by the attendant. On April 29th the pains again returned. Cocaine gave instant relief. On April 30th the pains recurred. The

nose was painted with simple water, to see if suggestion was playing the chief rôle. No result followed the application. Cocaine was then applied and pain at once (in five minutes) arrested. The "stomach point" was then removed with bone forceps, and from that moment there has been no return of the pains.

CASE 8. Woman, married, aged thirty-seven, suffered from gastric pains since twenty-third year. During her first pregnancy (at thirty-one years) and for two years thereafter she was entirely free from pain. Then the gastric pains recurred and lasted several months. At thirty-four years came the second pregnancy, and again brought cessation of pains. In thirty-sixth year pain recurred, ceasing then during third pregnancy and recurring in August, 1894, when the gastric pains were accompanied by severe dysmenorrhea. On October 10th, during a severe attack, cocaine was painted as usual on anterior third of left middle turbinated bone. In four minutes the gastric pains were entirely relieved. The pains returning on two following days, the "stomach point" was removed on October 12th, followed by complete cessation of gastric pains.

CASE 9. Woman, fifty years of age, had headache almost continuously for two years, from 1886 to 1888; during last six months of that time had also suffered from severe gastric pains. Examination showed thickenings of fibroid consistence. On the thirteenth of June, 1888, the anterior portion of the right middle turbinate was removed, and on the eighteenth the same portion of the left. Headache and gastric pains disappeared after last operation, and now, six years later, have not returned.

CASE 10. Actress, unmarried, age (January, 1891,) thirty; complained of frequent left-sided headaches, heartburn, loss of appetite, and severe gastric pains. The anterior end of the left middle turbinate was found enlarged, and was destroyed by galvano-cautery. Complete relief of gastric pains and the headache followed.

II. The reader is already prepared for the seeming paradox that a discussion of dysmenorrhea should be taken up in connection with gastric neuralgia.

Gynecologists have held the greatest variety of anatomical conditions responsible for the occurrence of this anomaly of menstruation. In the first rank have been stenoses of the cervix, abnormal positions and catarrh of the uterus, myomata, pelviperitonitis, and other conditions. It can not be denied that these conditions produce menstrual

pain in some, perhaps in many cases. But they are not the usual, so to speak, the regular cause of dysmenorrhea. The fact that the beginning of dysmenorrhea is generally referred back to the time of continuing development (frequently a year after the first menstrual period, very seldom at the time of its first appearance) when, with the exception of stenosis and antelexion, there could be no talk of the other conditions mentioned, gives a finger sign in an entirely different direction. Among gynecologists uncomplicated antelexion has to-day lost nearly all its pathological dignity; and the importance of stenosis in producing dysmenorrhea has certainly been much exaggerated. This belief is supported by the following startling statement: *During an attack of dysmenorrhea the pain can be relieved at any time in from five to eight minutes by the application of cocaine to the nose*, which would be impossible did the cause of dysmenorrhea lie in anatomical changes in the uterus or the adnexa. In order to begin the investigation with as uncomplicated cases as possible the cases exhibiting that form of dysmenorrhea occurring in otherwise healthy girls, or in married women whose suffering dated from their maiden years, will be first considered. These represent the majority of cases.

Further, when the cocaine experiment has succeeded, *the dysmenorrhea can be permanently cured by cauterizing the regions in the nose which are specific for dysmenorrhea*. These are the *inferior turbinated bone and the tuberculum septi of both sides*.

First will be considered thirteen cases in which dysmenorrhea dated from the developmental period (puberty), or, at the latest, one year thereafter, had lasted from one to ten years, and was relieved from the moment of the nasal treatment.

CASE II. Married woman, twenty-four years of age; since sixteenth year suffered from frequent and severe pains in the back, making every sitting occupation impossible. During menses suffering intense from back and abdominal pains and cramps, weakness, and a "wound feeling" in the abdomen, so that even speech was painfully accomplished. By early awakening or early rising in the morning there always occurred a feeling of sickness; this passed off after a time, but rendered the taking of food impossible for some hours. On July 12, 1893, during violent dysmenorrheic pains, both sides of the nose were cocaineized. In eight minutes the pain, which had already lasted many hours, ceased completely. The general feeling was markedly improved.

Before the cocainization the turbinated bones showed strong vasomotor swelling. Cauterization of the left inferior turbinate with trichloracetic acid was done. From this time to July 15th the abdominal pains did not recur; the general feeling remained likewise good. On July 16th, in the afternoon, there was great weakness, sick-stomach, and during the night a heavy chill, accompanied by severe pains in the small of the back. Examination of the nose showed the right inferior turbinate very much congested and swollen. On July 19th it was cauterized with trichloracetic acid, and after July 23d the patient's condition was splendid. Lack of appetite gave place to a feeling of hunger, the pains in the small of the back disappeared, not recurring even while engaged in any sitting occupation. The next period was sparser and of shorter duration than formerly, and *entirely free from pain*. This good condition has persisted up to the present time.

This patient began to menstruate in her fourteenth year, and shortly thereafter the periods began to be painful, and so remained up to the time of the nasal treatment. Since then there have occurred seventeen periods and all of them painless.

CASE 12. Unmarried woman, twenty-eight years old. On account of sphenoidal empyema the sphenoidal fossa was opened and scraped out and cauterized with trichloracetic acid. In doing this a hypertrophic spot on the tuberculum septi and the right inferior turbinate were also cauterized. On the next day the patient had severe back and abdominal pains, "as at the period," which was due fourteen days later, at which time it made its appearance. Much to the patient's surprise, this time it was entirely painless for the first time in her life. Since puberty menstruation had always been accompanied by severe back and abdominal pains, and by migraine. Ordinarily the period lasted from six to ten days, on this occasion one day and a half. Absence of pain and reduction of the amount of flow has continued up to the present time. It is noteworthy that in this case only the right side was treated, and not only was pain relieved, but the amount of flow was much reduced, as was likewise the case in Case 11.

CASE 13. Married woman, opera singer, aged thirty-three, February 26, 1894. Complained for some time of palpitation of the heart, occurring regularly during the period. Since the time of maidenhood she suffered from severe dysmenorrhea, cramplike pains in back and abdomen and also in right leg, and therewith a sensation of pressure on the stomach, which generally came on immediately before the period

and disappeared during it. She had been treated in vain by many gynecologists, not only for the dysmenorrhea, but also for an endometritis. The nose was frequently stopped up, which was very trying to a singer. The caustic trichloroacetic acid was applied to both inferior turbinated bones and to the tubercula septi, which were found swollen. At the next period (end of March) there did not occur a trace of the heart palpitation, nor of the dysmenorrheic pains.

On the 26th of April, shortly before the next period, patient complained of strong feeling of pressure over the stomach. Cocainization of the anterior third of the left middle turbinated (stomach point) relieved this inside of five minutes. As the period was accompanied by some back pains, the galvano-cautery was applied to the much swollen right inferior turbinate and the tuberculum septi. There were some reaction symptoms of pain following the operation. On May 24th the next period occurred, and was unaccompanied by any of the former pains. Since this time the periods have been entirely painless.

CASE 14. Married woman, forty years old. Since maidenhood suffered from dysmenorrhea, which had not been influenced by birth of her son. Severe abdominal and back pains, migraine; toward the end of the period, lasting ordinarily six or eight days, there occurred every time pain in the anterior region of the thigh, which was very annoying. In December, 1892, and January, 1893, the patient's nose was treated for the increasingly painful migraine, among other things the galvano-cautery was applied to the inferior turbinated and the tubercula septi. The next period occurred on February 1st, and was entirely free from pain. The thigh pain likewise was absent. This good condition has persisted to present time, twenty-one months.

CASE 15. Unmarried woman, seamstress, aged thirty-seven, March 21, 1893. The patient, who some years before had suffered for months at a time from pain in the right hypochondrium, complained of constipation and increasing headache, which for past eight days had been continuous; therewith was associated pain in both shoulder-blades, in ensiform process of sternum, in both hypochondria, and in the small of the back; there was palpitation of the heart, loss of appetite, and great weakness. Cocaine was applied to both inferior turbinates and to both tubercula septi, and brought relief from the various pains in about eight minutes, so cauterization of the cocainized parts was done, with the result that the patient has remained entirely free from the many pains she suffered before.

In July, 1893, it was learned from this patient that she had always, since puberty, suffered extremely at each period from abdominal and back pains, and that since the cauterization in March these dysmenorrhic pains had disappeared entirely. Recent information from this patient gives assurance that there has since been no return of the periodic pains.

CASE 16. This is Case 6 described under gastric neuralgia. Separation of adhesions between the left inferior turbinate and the septum and cauterization of the right inferior turbinate caused the periodic pains, which had always been present before, to disappear entirely.

CASE 17. Married woman, actress. Patient came under treatment on account of severe migraine. Besides this she had suffered since maidenhood from severe dysmenorrhea, generally accompanied by shooting pains into the legs. Physical examination disclosed only a retroflexio-uteri mobilis, which had resisted the treatment of several well-known gynecologists. In the nose there were swellings on inferior turbinate and tuberculum septi of both sides. The other organs of the patient were healthy. On account of the migraine cauterization of the left inferior turbinate and tuberculum septi was done on April 11, 1894. The next period, on April 19th, to the surprise of the patient, was accompanied by very much less abdominal pain, chiefly left-sided. On May 1, 1894, the right inferior turbinate and tuberculum septi were cauterized. On May 6th the period made its appearance; there had only been an interval of eighteen days, a thing unheard of before in the patient's history. It was attended by considerable abdominal pain. Ten days later, on May 16th, the period again made its appearance, this time at the correct date, and was painless.

CASE 18. Unmarried woman, twenty years old. In December, 1890, nose was treated on account of headache; hypertrophied portions of both lower turbinated bones and both tubercula septi were cauterized. Since that time the severe dysmenorrhea, from which she had suffered since her fourteenth year, has entirely disappeared. Relief in this case has already lasted four years.

[TO BE CONTINUED.]

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Wet Pack in Scarlet Fever; The Medical, Surgical, and Hygienic Association; Disposal of Condemned Meat; The Guild of St. Luke; The City of London Asylums Board; Miss Julia Cock, M. D.; The Natives of India and Typhoid; The Disposal of Ships-Stores.

Mrs. Garrett Anderson, M. D., does not see why lady medical students should wish to have a separate university for women. She recently pointed out that in England, Scotland, and Ireland there were already six universities where women may take medical degrees. There are in addition six medical schools in which lady students may study with men, and four schools for lady students only. Thirty-five years ago nothing of the kind existed, and a woman suggesting such a thing as a medical education and practice for persons of her sex was regarded as a crank.

The Medical Officer of Health for Leicester, in his annual report is emphatic in his testimony to the success of the "wet pack" method of treating scarlet fever. He reminds the corporation that in his previous report he had spoken favorably on the subject. During the past year he had subjected about 290 patients in the fever hospital to the treatment, as compared with about 800 treated by other methods.

The Medical, Surgical, and Hygienic Association has held a successful exhibition. The society was first formed in 1895 as a representative adjunct to the British Medical Society, then holding its congress in London. This year about six thousand invitations were issued to medical practitioners, chemists, dentists, and nurses. Concerts were given twice daily. The chief attraction appeared to be the West End Pathological Laboratory, which was represented by Dr. Severn with a culture garden of bacilli and other microbes, in all about a hundred cultivations and eighty cultures, to which must be added the very numerous illustrating photomicrographs and drawings. To add the interest of antiquity to the surgical branch of the exhibition, Mr. Openheimer lent his very fine collection of Roman implements.

In the city of London during 1896 Dr. Saunders, the Medical Officer of Health, had to deal with 915 tons of meat which had been condemned as bad, and which, had it not been seized, would have been sold. Contractors paid the Commissioners of Sewers £2,352 for the evil-smelling stuff. Dr. Saunders, in explaining what is done with it, said that first of all it is hacked and slashed about with knives to render its appearance unlike meat

for market, and then it is thrown into a chemical bath to soak for some time. These baths were introduced by Dr. Saunders in 1874. The meat is treated with chlorides of calcium and soda and afterward with sulphate of iron, which renders it black, unsightly, and nauseous. It is by this time a pulpy mass of decomposed tissue almost beyond recognition. It is now treated with picric acid which turns it a bright yellow. At this point the city authorities have done with it and it is given over to the contractors who remove it to some works at Bow, where in steam-jacketed pans it is boiled down for the fat, which is sold to candle- and soap-makers. The bones are collected and sorted, the smaller and worthless ones are reduced to powder which is sold for phosphates. The residual liquor, which is a yellowish-brown, treacly-looking fluid, is used for manure.

The Guild of St. Luke proposes to establish a college of St. Luke for men training as medical missionaries in connection with the Church of England. The institution would be residential only, the students being under the control of a principal, and attending the various medical schools for their education. Those who qualified would receive appointments to the many medical posts in connection with mission stations, which at the present time it is difficult to fill with suitable men. At a recent meeting held with the object of advancing the proposal, the idea seemed general that such an institution would be of the greatest possible use.

During the year 1896 the Asylums Committee of the London County Council was responsible for 13,526 persons of unsound mind as compared with 10,104 in 1890. Pending the completion of a new asylum at Bexley Heath, 600 beds have had to be provided in temporary buildings at Binstead and Colney Hatch, and like accommodation for 400 female patients is in progress at Hanwell. Last month an estate of 1,060 acres was purchased for £40,000, on which a seventh county asylum will be erected for 2,000 beds. The weekly rate for maintenance remains at 10 s. 2½ d. per week per patient, chargeable to parishes and unions in the county. The pathological laboratory at Claybury is fully equipped, and arrangements have been made whereby clinical instruction can be given to students from four of the London medical schools.

Miss Julia Cock, M. D., the sister of the well-known Q. C., takes Mrs. Dr. Garrett Anderson's place as president of the Association of Medical Women. She is sub-dean of the London School of Medicine for Women at the Royal Free Hospital, from which institution twenty-six women have qualified as medical practitioners during the past year.

Surgeon-Major Freyer after long observation has come to the conclusion that the adult native of India has no natural immunity to the poison of enteric fever, but his apparent immunity is due to the fact that he has passed through a mild and unrecognized illness, really typhoid, during childhood. As a result of testing the blood serum of healthy natives at different ages, in some thirty cases, all the adults and the majority of the children over two years of age gave a positive reaction, while in all cases the chil-

dren did not give any trace of reaction. Surgeon-Major Freyer suggests that the increased liability of British soldiers in India to typhoid is due to the improvement generally of sanitary conditions in the British Isles.

The medical officer of health of St. Pancras states that many cases of poisoning from eating canned delicacies are due to the fact that so much of the tinned foods in the cheaper markets is derived from old ships-stores, and suggests that the law should compel the stamping of the date of tinning upon every tin.

News comes from Paris that a veritable epidemic of suicide has raged recently. The numbers of suicides in France has risen from 6,338 in 1880 to 9,703 in 1894.

At an interesting gathering at the Medical Society's of London rooms Miss K. P. Hicks was congratulated upon the success which has attended the institution of the Nurses' Co-operation, a society of which she was Lady Superintendent, its object being to secure nurses the full reward of their labors.

LONDON, August, 1897.

Abstracts and Selections.

THE TREATMENT OF CANCER OF THE STOMACH.—In the *Journal des Praticiens* for January 9, 1897, is an article quoting Robin in regard to this subject. One of the most important points in the treatment of this disease in his opinion is the regulation of the diet and a diminution or absolute denial of albuminous food, with measures devoted to the prevention of fermentation of vegetable substances. The patient should also drink only in small quantities, and in those cases where there is hematemesis associated with a cancer, or obstinate vomiting, an absolute milk diet is necessary. The treatment from a medicinal point of view may be divided into the anticancerous and symptomatic.

The first can be met by three medications: first, condurango prepared in the following manner:

R Condurango bark, ½ ounce;
Water, 12 ounces.

Macerate for twelve hours and then reduce to six ounces by boiling. A dessert-spoonful of this may be given three or four times a day.

The second remedy of value is the chlorate of sodium, which is, however, distinctly contra-indicated if there is albuminuria.

The following prescription may be used:

R Chlorate of sodium, 2 drams;
Distilled water, 3 ounces.

A small teaspoonful in the morning.

Third, aristol in pills containing one to two grains, and given three or four a day.

The symptomatic medication is as follows:

For improving the appetite small doses of strychnine and some good wine, and ten minutes before the meal the following in a cachet:

R Chloride of ammonium, 3 grains;
Bicarbonate of sodium, 5 grains;
Dover's powder, 2 grains.

With the object of favoring digestion, hydrochloric acid may be used to compensate for the absence of hydrochloric acid found in this disease. The following cachet may also be given:

R Pepsin, 8 grains;
Extract of malt, 2 grains;
Pancreatin, 2 grains.

For the purpose of diminishing fermentation sublimed sulphur in the dose of three grains, or iodide of sulphur in two-per-cent strength given in the dose of five to ten grains in cachet after each meal. For the mitigating of vomiting we may have to use opiates, chloroform-water, or cocaine, given five minutes after the repast. In other instances the following may be used:

R Picrotoxin, 1 grain;
Hydrochlorate of morphine, 1 grain;
Sulphate of atropine, $\frac{1}{2}$ grain;
Cherry laurel water, $2\frac{1}{2}$ drams;

Five to eight drops at a dose.

To combat hemorrhage ergotin is a most useful drug. For small hemorrhages the following may be given:

R Tannic acid, 10 grains;
Powdered opium, 3 grains;
Sugar, 15 grains.

Make into six cachets, all of which may be taken in hourly doses.

For the relief of pain an ointment may be applied to the abdominal wall composed of extract of belladonna, extract of opium, and extract of hyoscyamus; and a plaster made with diachylon plaster, with one part each of these drugs to ten parts of the diachylon and two parts of the acetate of ammonium.

Internally the following may be given:

R Bromide of potassium, $1\frac{1}{2}$ drams;
Hydrochlorate of morphine, 1 grain;
Cherry laurel water, $2\frac{1}{2}$ drams;
Ether, 2 drams;
Syrup, 6 drams;
Distilled water, 4 ounces.

Dessertspoonful to teaspoonful of this may be given at a dose.

To overcome the pyrosis the following may be used :

| | | |
|---|----------------------------------|------------|
| R | Calcined magnesia, | 10 grains; |
| | Powdered opium, | ½ grain; |
| | Subnitrate of bismuth, | 4 grains; |
| | Bicarbonate of sodium, | 10 grains. |

In addition to these methods of treatment we must overcome the tendency to diarrhea or constipation as these conditions arise, and prescribe as healthy a life as it is possible for the patient to follow.—*Therapeutic Gazette.*

CONGENITAL DEXTROCARDIA.—Vehsemeyer (*Deut. med. Woch.*) relates a case examined by means of the Roentgen rays. It occurred in a lad, aged sixteen, who was ill-developed for his age. He was left-handed. There was no cardiac impulse to the left of the sternum, but a diffuse pulsation was noted on the right side, the apex beat being in the fourth right interspace. The cardiac dullness was also placed to the right. The diagnosis of congenital dextrocardia, without transposition of the large vessels, hypertrophy of the right ventricle, chronic pneumonia of the left lung, and chronic bronchitis was made. In the skiagraph taken from behind, the lungs showed an even, bright shadow, which extended three ribs lower down on the left than on the right. To the right of the vertebral column there was a shadow due to the heart more deeply marked in the upper and middle parts. The dome of the diaphragm was distinctly to be made cut, and this shadow was curiously placed higher on the left than on the right side. On the right, the cardiac shadow passed into the hepatic shadow. The splenic shadow was also visible. The hepatic shadow was intensified lower down owing to the renal shadow. Pure congenital dextrocardia appears to be much rarer than complete transformation of the viscera. It has been recorded only in some twenty cases.—*British Medical Journal.*

METHYLENE BLUE IN THE DIAGNOSIS OF RENAL PERMEABILITY.—At a recent meeting of the Société médicale des hôpitaux, a report of which is published in the *Journal des Practiciens* for June 26th, M. Achard stated that he had gathered fifty new observations and performed eighteen autopsies which confirmed the results previously obtained by him. In twenty-two cases of normal elimination of methylene blue he had always verified the integrity of the kidneys at the autopsy. Of twenty-eight cases of tardy elimination, thirteen had shown renal lesions at the autopsy.

It was not only to medicine, properly so called, he said, that the test of methylene blue might furnish useful results, but also to surgery, by indicating if the kidneys were performing their functions in a normal manner. He cited an interesting case which had come under Dr. Schwartz's observation as a remarkable demonstration. In this case the patient was suffering from nephrydrosis, and catheterism of the ureters enabled the physician to collect the urine from each kidney separately. It was ascertained that the

methylene blue did not pass through the kidney of the diseased side, but had later on through what been considered the healthy kidney, the urine of which, moreover, contained traces of albumin.

Concerning the therapeutical effects, due to the action of the methylene blue on the albuminuria, ordinarily there were none.

M. Hirtz stated that he had employed this drug six times in cases of albuminuria without any appreciable benefit. M. Chantemesse had given from twelve to fifteen grains a day with no result.—*New York Medical Journal*.

FACE PRESENTATIONS.—P. Dreyer (*Norsk Mag. for Laegevidensk.*) emphasizes the difficulties met with in malrotated face cases. When the chin is to the front no other treatment than that employed in vertex cases will be needed; but when the chin is posterior one should leave the case to nature till, after complete or nearly complete dilatation of the os externum and rupture of the membranes, one recognizes that in spite of good pains the chin does not in an hour or two pass into the pelvic cavity. If, then, there are signs of danger in the lower uterine segment, and if the fetal heart beats are diminishing in number and becoming irregular, the time has come for changing the presentation by "*redressement*." This treatment the author prefers to version, even when immediate delivery is necessary, and he follows it at once by the use of forceps. He thinks there is less danger in applying forceps to the occiput in its high position than in trying version when the lower uterine segment is much distended.—*British Medical Journal*.

PREVENTIVE PLUGGING IN ABDOMINAL SURGERY.—Lauenstein (*Centralb. f. Chir.*) insists on the practical value of temporary preventive plugging with sterilized gauze in operations on the hollow viscera of the abdomen. He would, in a case of laparotomy for perforating gastric ulcer for instance, after exposure of the stomach and removal by irrigation of its contents, plug the fistulous opening by a long strip of gauze passed into the stomach. He would then apply the sutures in a loose row, and on tying these one by one would gradually remove the gauze. The discharge of any fluid remaining in the stomach during the application of the sutures or the separation of adhesions may thus be avoided. This method is also strongly recommended in operations for gangrenous hernia, for cholelithiasis, and fistula of the gall-bladder, for cancer of the rectum, and for perforating wound and rupture of the intestine and urinary bladder. The author points out, however, that in resection of the intestine plugging is not to be practiced independently of temporary compression of the divided intestinal segments by ligature or clamp. The introduction of a long piece of gauze is particularly useful in preventing the flow of urine into the peritoneal cavity during the closure by sutures of an intraperitoneal rent in the bladder.—*Ibid.*

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THE ETHER-CHLOROFORM CONTROVERSY.

It is no exaggeration to say that no subject in medicine has enlisted the attention of more eminent investigators or consumed more printer's ink than the question of the relative advantages, disadvantages, and dangers of the two rival anesthetics, ether and chloroform. Surely the many thousands of surgical operations under both anesthetics which have been performed during the half century of the existence of anesthesia should have furnished an array of statistics competent to put the question empirically beyond controversy, while the physiological skill enlisted in its elucidation during the last twenty-five years would seem sufficient to have given it a final scientific settlement. Nevertheless the question is still open, and surgeons without prejudice still stand in doubt in certain cases as to whether this or that anesthetic should be employed.

Of course the extremists will shut their eyes to facts and continue to go each his own way; but the novice in surgery and the unprejudiced riper surgeon must still give the subject careful study and anxious thought. And indeed it does begin to look as if the question was about to have the scientific settlement so long looked for.

For decidedly to the point is the address on "The Causation of Chloroform Syncope," by Leonard Hill, M. B., Lecturer on Physiology at the London Hospital, delivered before the London Society of Anesthetists on February 18, 1897, and published in the *British Medical*

Journal for April 17, 1897. In the opinion of the learned editor of the Boston Medical and Surgical Journal (from whose review of this paper we quote), Mr. Hill "makes some remarks upon this subject which, coming from England, where, as is well known, chloroform for many years completely displaced ether, and even now is the anesthetic most frequently used, are of especial interest."

Mr. Hill would seem to hint that the English have minimized the dangers, while perhaps overstating the advantages, of chloroform anesthesia; for it is a fact, attested by statistics accumulating during many years, that one death under ether occurs in about fifteen thousand administrations, "while chloroform causes one death in three thousand administrations."

"In a certain institution in Great Britain, in the course of a recent year, there were, out of some three or four thousand administrations, no fewer than twelve fatalities. This is no exceptional case. The deaths from chloroform are not recorded in the medical journals, for these reflect upon the reputation of the administrator and the institution in which they occur."

But, these points aside, the one great feature of the paper is that it claims to be a successful movement "toward the establishment of the true pathological causes of chloroform syncope, and the *controversion of one of the most pernicious and dangerous doctrines ever put before the medical profession*," to wit, that chloroform kills by paralyzing the respiratory center. In this the author flies in the face of the celebrated Hyderabad Commission, which, in putting forth this doctrine, he claims was "supported by the wealth of the Hyderabad Government, furthered by the prejudiced enthusiasm of Surgeon-Lieutenant-Colonel Lawrie, and upheld by a series of experiments, many so careless that they could not for a moment be accepted by a trained physiologist." He might have added that the Commission so imposed upon the credulity of Dr. Lauder Brunton as to convert him to views which he had for many years ably disputed by theory and disproved by experiment. Thus "this doctrine that paralysis of the respiratory center causes chloroform syncope has been industriously spread abroad and instilled into the minds of the whole medical world."

In refutation of this primary dogma of the anesthetist's creed, Mr. Hill brings forward the following established facts:

1. Chloroform produces a fall of arterial pressure. This was proved by Snow, by the Glasgow Commission and others, long ago.

2. That the Hyderabad Commission, "while admitting this fact as incontrovertible, also found (by careless and inadequately planned experiments) that the respiratory center became paralyzed before the heart." This was disproved by MacWilliam, "who found, in several animals, sudden failure of the heart during primary anesthetization, while the respiration remained unaffected. This failure was found to be due to paralytic dilatation of the heart."

3. "Gaskel and Shore and Hare and Thornton found that the injection of chloroform into the jugular veins produced cardiac *followed* and not preceded by respiratory failure," a fact which the Hyderabad Commission failed to find, because they used pure instead of diluted chloroform, and because of badly planned and badly executed methods of experimentation." Gaskel and Shore found by careful and ingenious experimental methods that the heart is rapidly paralyzed by chloroform; the respiratory center is also paralyzed, but the vasomotor center is excited to increased action."

In addition to this review of the work and refutation of the doctrine promulgated by the Hyderabad Commission the paper gives the details of considerable experimental work by the author, assisted by Harold Barnard, M. S., F. R. C. S., and C. Wall, B. A., of the London Hospital. In this work, "change of position upon the circulation, with or without anesthesia, the effect of chloroform upon cardiac inhibition by electrical excitation of the vagus, the phenomena of fatal syncope at an early stage, syncope during prolonged anesthesia, and the treatment of syncope," are dealt within a manner both skillful and scientific. His conclusions, which are of great practical interest to the surgeon, are as follows:

1. Chloroform produces a primary failure of the circulatory mechanism and a secondary failure of the respiratory center. The respiratory center fails to act not only because it is damaged by the drug, but because of the anemia of the spinal bulb produced by the fall of arterial tension. This is proved by the fact that the action of the respiratory center can be renewed by raising the arterial tension. The depth of anesthesia depends, as does the paralysis of the respiratory center, on the primary fall of the arterial tension.

2. Chloroform, more than any other known agent, rapidly abolishes the vascular mechanisms which compensate for the hydrostatic effect of gravity.

3. Chloroform abolishes these mechanisms by paralyzing the splanchnic vasomotor tone, and by weakening the action of the respiratory pump. When these mechanisms are totally abolished, the circulation is impossible if the subject be in the feet-down position.

4. Chloroform also produces paralytic dilatation of the heart. It acts directly like amyl nitrite on the musculature of the whole vascular system.

5. There are two forms of chloroform syncope: (a) During primary anesthetization. The patient struggles, holds his breath, raises the intrathoracic pressure, congests his venous system, lowers his arterial tension, and finally takes deep inspirations and surcharges his lungs with chloroform. In the first stage the left heart becomes impoverished; in the second stage it is suddenly filled with blood. This is drawn from the lungs, and is full of chloroform. The chloroform passes into the coronary arteries, and the heart is thrown into paralytic dilatation. Respiration and the pulse either cease simultaneously, or the pulse before respiration. (b) During prolonged anesthetization this arises from gradually giving chloroform to too great an extent. The arterial pressure falls lower and lower, and, secondarily, the respiration ceases because of the anemia of the spinal bulb. The heart is not in this case paralyzed by chloroform, because the drug is taken in gradually by the shallow respirations and distributed by the feeble circulation.

6. Artificial respiration and the assumption of the horizontal position, if applied in time, will always resuscitate a patient from the second form of syncope.

7. Artificial respiration, established with the patient in the horizontal posture, is also the treatment indicated in the first form of syncope; the heart should be rhythmically compressed by squeezing the thorax. If this does not quickly renew the pulse, the patient should be put into the vertical, feet-down posture. The dilated right heart is thereby completely and easily emptied of blood. Artificial respiration is maintained during this maneuver, and the patient is brought once more into the horizontal posture. By rhythmic compression of the chest an efficient circulation is maintained through the coronary arteries; by first emptying and then filling the heart a fresh supply of blood is brought into that organ. If this does not prove successful on the first trial it can be repeated.

8. Inversion, that is, placing the subject in the feet-up position, or compression of the abdomen will increase the paralytic dilatation of the heart. In this kind of syncope both these forms of treatment are worse than useless.

9. In the condition of shock or emotional fear the compensatory mechanism for the effect of gravity is almost abolished, and chloroform may easily be the last straw to completely paralyze the circulation.

10. Vagus inhibition of the heart is of no importance as an agent in the production of chloroform syncope.

11. Ether is in every respect a far safer anesthetic than chloroform. According to Ringer's experiments on the heart, ether is fifty times less dangerous than chloroform.

12. With the practical conclusion of the Hyderabad Commission that the chloroform inhaler should be removed during the struggling of the

patient or when the respiration is of irregular depth, I am in absolute agreement, but I consider their interpretation of their own experiments and tracings concerning the origin of chloroform syncope to be mistaken.

Not only the work of all physiologists, but also the tracings of the Commission, when rightly interpreted, prove that paralysis of the circulatory mechanism, and not of the respiratory center, is to be dreaded by the anesthetist.

DR. RODMAN'S FLATTERING CALL.

The many friends and large clientel  of Dr. William L. Rodman will be glad to learn of the distinguished honor recently conferred upon him, which is no less than a call to the chair of the Principles and Practice of Surgery and Clinical Surgery in the Medico-Chirurgical College of Philadelphia.

The call, which was promptly followed by the election of Dr. Rodman to the chair, has been accepted conditionally. He has agreed to deliver in the school named a course of lectures, didactic and clinical, between October 1, 1897, and January 1, 1898, when he will return to resume his work in the Kentucky School of Medicine, where he has taught surgery with signal success for several years.

It is due Dr. Rodman that his clientele should know that during the sojourn in the East he will return to Louisville at short intervals (perhaps weekly) to look after his work, which is altogether surgical. If, therefore, he should finally consent to make his home in Philadelphia, it will not be until a year hence.

We congratulate the brilliant young surgeon upon this decided recognition of his learning and talents; but hope that the city which he loves, and which loves him, will not have to surrender him at last to the City of Brotherly Love.

Notes and Queries.

CONTAGIOUSNESS OF CANCER.—Leon Noël has collected together (*Thèse de Paris*, 1897,) a large amount of information on this subject, more particularly in support of the idea that the origin of cancer should be sought for in some widely spread condition affecting very various organisms both animal and vegetable. This idea, originated by Fiessinger, is based first of all upon the fact that cancer seems to be most frequent in isolated houses on the banks of rivers, especially if close to woods. It has also been observed that trees under these same conditions are affected with veritable tumors which present a curious resemblance to cancer. Among other facts cited by Noël is one which goes to show a certain relation between arboreal "cancer" and that of man: that is, not only the frequency of malignant tumors in habitations surrounded by or near woods, but also a considerable mortality from cancer among certain persons whose occupation obliges them to live in these conditions; thus excise officers, who in certain parts of the country pass a considerable portion of their time in isolated paths through woods, have frequently been observed to suffer from cancer. The statistics of Julliard, Bierry, and Fiessinger, all contain considerable numbers of excisemen, and it is now a known fact that country laborers are very predisposed to cancer, and traumatism, scratches from brushes, etc., have been thought to have considerable bearing on the etiology of cancer. Cancer of the lip is said not to exist at Lyons, and all those who go into hospital there to be operated on for growth in that situation come from the fields. The malignant vegetable tumor is found in woods and orchards. This tumor appears to be contagious, a good number of them being often found in the same neighborhood. Insects, as shown experimentally by Marau, more particularly the large wasps found in woods, seem to have a certain predilection for arboreal "cancer." Not only do they carry infective material from one tree to another, but they also disseminate it into human food. Ruffer's observation is quoted that large numbers of protozoa live on insects in the form of saprophytes, and it is quite easy to understand how insects could carry any infective material, and the question is asked, Is it possible for a human being to develop cancer as the result of such infection? It is also easy to understand how water, especially in the neighborhood of woods, could act as the medium of transport. In point of fact Fiessinger speaks of two different methods in which cancer may be propagated, from food and by the fingers. In the one case cancer of the alimentary tract will result; in the other any external portion of the body may be affected. Although these questions are merely hypothetical, they merit further observation.—*British Medical Journal*.

ACUTE ASCENDING PARALYSIS AS A COMPLICATION OF PASTEUR'S TREATMENT.—Rendu (*Bull. de l'Acad. de Med.*) reports a case in which acute ascending paralysis supervened on Pasteur's treatment. The patient, a lad acting as attendant in the *post-mortem* room, pricked his finger while assisting at a necropsy on a man who had died of hydrophobia. As a prophylactic measure he was treated at the Pasteur Institute, and received sixteen injections between March 22d and April 1st. On the latter date he felt cold, and the following day was ill, with a feeling of heaviness in the legs so that he could hardly walk. There was also some pain in the loins like lumbago. The temperature was only slightly raised, and there was some general hyperesthesia. On April 3d there was marked paresis of the lower limbs, with muscular pains, and almost complete anesthesia of abdomen, lumbar region, and lower limbs; there was also paralysis of the bladder. On April 4th paraplegia was almost absolute, and involuntary defecation occurred about this time. There was no difficulty in respiration or in swallowing. On April 6th some weakness of the upper limbs came on, and the heart became rapid. During this time the injections had been continued, as it was considered important to complete the immunization. On April 7th improvement began; the arms were no longer weak, and there was some return of power and sensation in the legs. Progress was rapid, and within three weeks the patient was quite convalescent. That the case was one of paralytic rabies seems unlikely, as the incubation was too short and the clinical course unlike it. It seems more likely that an acute ascending myelitis was caused by some toxin in the emulsion of spinal cord which was injected, and that, though usually harmless, the toxin proved virulent in this case owing to the receptive soil produced by the unhealthy surroundings to which a *post-mortem* room attendant is continually exposed.—*Ibid.*

PAROXYSMAL HEMOGLOBINURIA.—Trumpp (*Munch. Med. Woch.*) relates two cases occurring in a brother and sister at eight and five years respectively. In the boy there had been previous evidence of congenital syphilis. The disease had lasted three years, the immediate cause being apparently exposure to cold. There was shivering, fever, and vomiting at the time of the attack with great desire to pass urine, which was of a reddish-brown color. The attack only lasted a few hours, after which the urine again became clear. There was occasionally swelling of the feet. The child appeared well. The urine passed during the attack contained much albumin, oxy- and meth-hemoglobin, but no red blood cells. In the girl there had also been manifestations of congenital syphilis. The urine during the attacks was the same as the above, but contained abundant renal epithelium. An attack could be produced by putting the feet in cold water. Ten minutes after the cold foot-bath, the blood showed poikilocytosis, and the cells did not run into rouleaux. No color change in the blood cells could be made out. The cold foot-bath also produced the attack in the boy. The treatment pursued consisted in keeping the patient warm and in giving a nour.

ishing diet. Antisyphilitic treatment did not appear to be indicated, as the symptoms of the disease were slight. Hereditary syphilis could not be doubted in these cases, yet the hemoglobinuria first appeared a year after scarlet fever. Perhaps the hereditary syphilis was the indirect and scarlet fever the direct cause of the disease.—*Ibid.*

HERPES AND TUBERCULOSIS.—Rouher has recently published some interesting details (*Journ. de Med.*) bearing upon a possible relation between zona and tuberculosis. It may appear under three different conditions: First, toward the end of severe pulmonary tubercle, and it is then of no special interest, but in other cases it is a very early symptom, and may, according to the writer, be looked upon as a premonitory sign. Thus, he quotes cases of patients subject to herpes zoster but who did not complain of any pulmonary affection. On examination of the lungs, however, early tuberculosis was discovered. In other cases, forming the third group, the signs of pulmonary tubercle may be discovered after a short interval, there being no physical indication at the time of the eruption. Although zona seems to affect neuropathic or neuro-arthritic subjects, it results from the author's observations that in every case of this disease the patient should be kept under observation, more particularly as concerns the lungs. The author points out the extreme importance and utility of this question should it be supported by more extensive observations.—*Ibid.*

COLLECTION OF THE URINE OF YOUNG INFANTS.—Marfan (*Journ. de Clin. et de Thèrap. Infant.*) comments upon the difficulty of collecting the urine of infants at the breast for examination. It is passed involuntarily, and mixes with the fecal matters: and it is not always convenient to collect it by means of the catheter, which is the only accurate method. He has therefore devised an apparatus to meet this difficulty. For the male infant he uses a pear-shaped india-rubber bag with an orifice in its posterior aspect into which the penis and scrotum are introduced; this is fixed in position by an abdominal belt; at its lower end is a metallic tap through which the collected urine can be drawn off. For girl babies a sort of funnel flattened laterally is fixed around the vulva, leaving the anus outside; it also has a tap which is straight when closed, and is thus not interfered with by the pressure of the thighs of the infant. The apparatus can easily be disinfected, and it enables the total quantity of urine to be gauged.—*Ibid.*

AN OINTMET FOR ECZEMA (*Journal des Praticiens*):

| | | |
|---|--------------------------------|-----------------------|
| R | Oxide of zinc, | 1 dram; |
| | Talc, | 1 dram; |
| | Olive oil, | $\frac{1}{2}$ ounce; |
| | Lime-water, | $\frac{1}{2}$ ounce; |
| | Lanolin, | $2\frac{1}{2}$ drams; |
| | Tincture of benzoin, | 10 minims. |

Special Notices.

THE SUPERIORITY OF SUGAR-COATED PILLS—"WARNER."—It is demonstrated by a wealth of evidence. There is accumulated evidence of perfect results obtained by the medical profession which has used them for over forty years. There is evidence in the award granted by the Columbian Exposition, 1893, upon the following grounds: "The pills are of uniform size, the coating is perfect and protects the pills indefinitely, samples twenty-seven years old being shown readily soluble in hot or cold water." A soft pill mass protected indefinitely from atmospheric conditions is certainly the perfection of pill-making. There is evidence to be found every day by suspending a Warner pill on a mosquito netting in water from 98 to 100 degrees and watching it dissolve. This test is conclusive as the conditions most nearly approach the natural conditions present in pill medication. It will show the superior solubility of the Warner product over pills made by any other process. It will guide the physician in his specifications.—*Monthly Retrospect of Medicine.*

A LETTER FROM PROF. I. J. M. GOSS.—I have used Tincture Passiflora for thirty years, but have gotten better results from it since using Daniel's Conct. Tincture Passiflora than ever before. A good many physicians have tested this valuable remedy in Neurasthenia, the great American Disease, "Nervous Exhaustion," and have been well pleased with it. Those who wish to try it can procure it at any of the wholesale drug stores, or of John B. Daniel, Wall St., Atlanta, Ga., who makes it of the green fruit, plant, and root, and when thus made it is active. I. J. M. Goss, M. D.

SANMETTO IN POST-GONORRHEAL GLEET.—Dr. Percy Newell, L. R. C. P. I., L. M., L. R. C. S. I., Mem. Brit. Med. Assoc., Crowborough, Sussex, England, writing, says: "I had a very obstinate case of gleet (post-gonorrheal) under my care—which did not show any sign of going, and was beginning to worry my patient. I had tried every remedy suggested in different works on surgery and therapeutics, but the wretched thing persisted. I put the patient on Sanmetto, a dose three times daily, in a week the thing was practically cured. I shall always stock Sanmetto in my surgery."

AN ANTIDOTE TO THE TWO GREAT SYMPTOMS.—The value of antikamnia consists in its rapid effect in alleviating the suffering of the patient while more radical treatment is working a cure. While endeavoring to rid our patient of his neuralgia, rheumatism, typhoid, intermittent or malarial fever, we secure him relief from pain and intermission of fever. We have, in short, in this drug, not a remedy for any disease, but a most useful antidote to the two great symptoms—Pain and Pyrexia.—*Medical Reprints, London, Eng.*

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THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

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No. 7.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—*RUSKIN.*

Original Articles.

EPILEPSY.*

BY B. F. EAGER, M. D.

I am aware that I have chosen a very large subject, one that has been observed and written upon and discussed as far back as history goes, yet nevertheless by no means clearly revealed to the sweeping advances of this closing period of the nineteenth century. My only apology for this bold and possibly unwarranted selection is, that it is practical, however obscure the disease or unsatisfactory the treatment, for we must all meet with it more or less in general practice.

I could not hope to give you a complete paper upon epilepsy, had I the ability to go deeply and broadly into the investigation of this subject through all the literature abounding in the profession. I shall accomplish all I hope for and rest satisfied with my labors if I but aid one brother practitioner in a small degree in the early discovery and care and treatment of this dreadful malady, or give him a morsel of comfort in the hopelessness that comes to us all almost universally.

Dunlison defines epilepsy as "a disease of the brain, occurring at uncertain intervals, in paroxysms, which are characterized by loss of consciousness and by convulsive motions of the muscles." Hughlings Jackson speaks of it as "a sudden, excessive, and rapid discharge of gray matter of some part of the brain on the muscles."

Nothnagel characterizes it as "a definite disease, with variations, as many others, from the typical," and locates the lesions in the pons and

* Read before the Southern Kentucky Medical Association, Hopkinsville, April, 1897.

medulla. Other authorities agree fully with this last view, and others still extend the "epileptic change" to the spinal cord, as well-presenting a form known as spinal epilepsy. Its name expresses fairly well the group of symptoms manifested in a typical case—the falling sickness—though other types are found, which we shall speak of later, and which are quite as genuine, notwithstanding they stop short of the maximum manifestations of the above.

Epilepsy is divided into two great classes, idiopathic and symptomatic, with three forms presenting even in the same individual at various times, the grand or severe, the small or mild, and the psychical or mental. As statistics go, in the main males and females are alike liable to the disease. The records, however, of the Western Kentucky Lunatic Asylum, where I served for fifteen years as assistant physician, during a period of nearly forty-three years, with more than eight per cent epileptic insane among 4,302 patients admitted, shows 69.5 per cent of males and 30.5 per cent of females. I mention this in passing. I mention it as a fact without an explanation so far as I know, unless parents and friends are more disposed to personally look after the welfare of girls thus afflicted, or that males are more liable to epileptic insanity, or possibly the greater danger to the family of the males by reason of their greater strength. From seven to seventeen years of age is regarded as the epileptic period. Among those admitted to the Western Asylum 51 per cent began under twenty years of age and 70 under thirty.

Of Gowers' cases 74 per cent were under twenty and 90 per cent under thirty years of age. Hamilton's cases present 47.5 under twenty and 71.6 per cent under thirty years of age. So one can see the wide range even statistics as to age take in this disease. Age really seems to bring with it no exemption, the disease having manifested itself very late in life in many cases. From all I think we can reasonably gather this: In cases of possible or apprehended epilepsy after twenty years is passed the chances for success in warding off or preventing the disease turn slightly in our favor, and after thirty we may consider our progress well up the hill of our efforts and hopes.

Among the causes, real or assigned, in written and unwritten clinical history, you might count the stars easier than enumerate them, and gain as much wisdom from one as the other. This long line reveals as clearly its great obscurity as tongue could speak, or a long list of remedies in your materia medica tells of a difficult and obstinate dis-

ease and the almost utter uselessness of medicines. But there are some that lie back along the line the child or adult has come, upon which all are agreed with some slight variation as to figures. Heredity stands first, and ranges, according to different authorities, from 25 to 45 per cent.

Referring to the asylum records again, only 18 per cent are traceable to heredity, as far as the books show, many cases presenting no assigned cause at all. My own conviction is that statistics in the main fall short in the true per cent of heredity, because of the incompetency frequently of those giving the information, and the unwillingness of others to disclose freely and fully the family history on account of family pride. Under these conditions I should think we might safely add to the per cent recorded if we would more nearly approximate the true relation of heredity to epilepsy. Of course in this we do not mean that the disease is transmitted as such—it may be insanity in one generation and epilepsy in the next, or the reverse, or some other neurosis.

Hamilton says that "four hundred and thirty-five of his nine hundred and eighty cases presented a neurotic family" history. Nothnagel says "any mental or nervous disease may plant the germs, long-continued neuralgias and mere "nervousness, a growing and encouraged instability of the nervous system," may sow the seed. These cases generally develop before twenty years of age. Gowers and Hamilton both think the transmissibility of the mother is greater than that of the father. In making investigations, then, for influences brought down through the generations, we must not lose sight of the lighter manifestations of nervous disturbances. We should pursue this with tact and diligence if we should only uncover a link now and then of the chain, going back of the generation preceding us if possible. That alcoholism sows the seed of this disease is recognized by all, just what proportion I am unable to say, though some of the highest authorities give it a prominent place in causation. The asylum records attribute only 2.2 per cent of its cases to this cause. We certainly meet many difficulties in examining this field, even were all frank and full and governed by no pride to incline them to cover up ancestral failings, so widely variant are the notions of people as to what constitutes excess or abuse along this line.

To this direct nervous transmission from the alcoholic father it seems entirely reasonable to me to add another influence, that of the

mother, whose nerve tension must be up to the breaking point many times over the husband she loves and her children's father. This is no idle moralizing, it is a real nervous condition that must be taken account of when we would sum up the influences that grow indirectly out of alcoholism. That a danger line is reached short of what is technically known as alcoholism I am fully persuaded is true. Just where or when this line is reached I am unable to say, for it must of necessity vary with the particular susceptibility of individuals. Then we have the direct influence of alcohol upon the individual aside from any taint that may come down from the parent. If we have preceding this a predisposition to "nervousness," the causative power is greatly increased.

Syphilis comes in as a parent of nerve lesions which may eventuate in epilepsy. Hamilton says the late development of this disease is usually syphilitic in origin or due to coarse brain disease, so it might not be amiss to have this in view in the care of these cases. It is thought by some that epilepsy comes in as a manifestation, or possibly accompaniment, of the second stage of syphilis, due, it is said, to some vascular disturbance not discoverable after death. How much of this is mental or toxic in its origin I imagine would be difficult to decide. Possibly such cases might fall under the head of severe mental shock.

How many of the organs of the body have been charged with producing this disease I know not; but perhaps, first and last, all might be included in the list, and possibly many of them justly. Many of the local diseases manifest, however, may be simply coincident with similar brain lesions, such, for instance, as arterial sclerosis, manifested principally about the heart, and tubercular deposits as found in the lungs. We have along these lines causes that may act upon the brain directly through the blood by the toxins introduced, or reflexly possibly through nervous irritation. Then we must look to the febrile diseases, the exanthems, etc. Among thirty-five cases Gowers found nineteen traceable to scarlet fever and nine to measles, while Hamilton found twenty-three cases running back to scarlet fever as a starting point. Acting upon and through the mind we have the varying emotions of fear running on up to its highest expression; we have prolonged anxiety and sudden and prolonged grief; we may have dangers even along the line of sudden and overwhelming joy. Brain lesions, such as hemorrhages, tumors, etc., come in for a share of causation, and then we have traumatism, direct and indirect.

The Western Asylum records show traumatism in 10.3 per cent of the insane epileptics admitted from its opening in 1854. It may be years after the injury before the trouble develops; twenty years in a case mentioned by Hamilton, and seven years after the injury in a case but recently operated upon by Dr. W. L. Rodman, of Louisville, Ky. In looking for causes in general we must have in view all the central and mental or moral and reflex and toxic influences along the line. Many if not the most of these cases, it seems to me, must find the final explanation in an unstable condition of the nervous system, either inherited or acquired. The pathology is no clearer to-day possibly than it was twenty or thirty years ago, autopsies revealing one thing to one observer and another to another observer, no approximately uniform changes having been found by all.

The symptoms of an ordinary typical case will be readily recognized by all, the general conclusive seizure coming on suddenly, preceded by loss of consciousness and sometimes accompanied by the peculiar epileptic cry, a tonic contraction of the muscles, and then clonic spasms, ending in a sleep or stupor variable in length, make up the usual attack. Then we have the lighter forms with localized spasms or mere muscular twitchings or a muscular fixation, with loss of consciousness, or it may be a simple dizziness or confusion, sometimes only absent-mindedness. Then we have masked epilepsy, or that manifested simply by its effect upon the mind, in which state all sorts of curious and even criminal things are done, extending over a period of many hours or possibly days, with total unconsciousness after the spell has passed of every thing that has transpired. We have in the character of Hyde, in "Dr. Jekyll and Mr. Hyde," a fair representation of this. A change of disposition, manifesting a degree of suspicion, moroseness and irritability, grossly vicious outbreaks in temper and living breaking in now and then upon an otherwise even and orderly life, culminating sometimes in theft and murder or other gross crimes, are but the outward expression of this form of the disease.

The diagnosis of epilepsy in a typical case is not in the main difficult unless the disease is hidden from the family by night attacks exclusively. The ordinary history of partial or general convulsions, occurring at irregular intervals and accompanied mostly by a period of unconsciousness and followed by more or less sleep or stupor, will at least give us ample ground for suspecting the character of ailment, to be allowed if possible in the future by personal observation of the physi-

cian. Examination of the tongue, which is sometimes bitten, a soiled bed, morning headache, and more or less drowsiness or heaviness during the early part of the day, will be in the main sufficient to identify night attacks, especially if we find in the family history neurotic outcroppings particularly of the more serious forms. In the milder or more limited convulsive seizures we have much of the same outlines to guide us, irregular and sudden in onset, unconscious, confused or merely absent-minded, sometimes followed by heaviness, with indisposition or inability to pick up the thread of conversation or conduct where it was broken though; occasionally this is done with the most utter ignorance of any break having occurred. Again we may have with these mental expressions a mere fixation of the muscles about the face, sometimes a simple tremor of the muscles.

Masked epilepsy may manifest itself in a change of disposition, occurring at irregular intervals, in a total change of character and conduct when all will-power seems in abeyance, in special sense disturbances, sometimes total blindness affecting one eye for some minutes, sometimes hallucinations of sight or hearing or taste, or it may manifest the obstinate neuralgias, and then end at last in ordinary epileptic seizures. In all these forms the family history should be thoroughly investigated and every possible cause diligently and carefully sought before our suspicions grow into a positive opinion as to the character of the disease.

Many epileptics go on to a ripe old age, dying of an ailment possibly not growing out of the disease. But few die in the convulsive seizure, though this may happen by injury in falls, by falling into fire, by drowning, by suffocation from falling face downward into soft bedding, or by drawing into the larynx some foreign substance, such as food, while eating.

The more frequent the attacks the more serious will be the effects upon the individual, especially upon the mind. The most serious danger is met when the convulsions grow in frequency and merge into what is known as the epileptic state, a large proportion resulting in death.

In the lighter and seemingly more trifling spells which repeat themselves often we may look for the most mental damage, showing itself in an early impairment of memory, and then many times in well-marked dementia. It is said that about one third escape these mental changes. Authorities are by no means agreed as to favorable and unfavorable

cases, some regarding those developing under twenty years of age as presenting the most favorable outlook, while others regard those occurring after twenty the most hopeful class. Those presenting uniformity and regularity in attacks, those confined to the night and tongue-biters are regarded by all, I believe, as unfavorable. The more recent in origin would reasonably give us the best results in treatment. Attacks that occur irregularly are favorable—I mean comparatively of course, for this is a desperate disease at best.

In the treatment of these cases we will be taxed to the utmost. We must first diligently seek the cause in the history given us of the patient and the family, and add to this the most searching investigation of the physical condition. All functional or other disturbances should be corrected as far as possible, and the patient placed in the best physical state. The daily life should be as even and unexciting as possible. The food should be plain, simple, and nourishing. Overeating should be carefully guarded against. Stimulants should be forbidden. The condition of the digestive functions should be watched and the bowels kept open. Light employment may be encouraged, and heavy, exhausting or difficult work discouraged. The utmost evenness of temper should be sought.

In the exhibition of medicines we have a long list to select from, and all having now or having had in the past abundant advocates and commendation. It would be useless to enumerate them, and certainly disappointing to use many of them. Many use the bromides alone or in combination with chloral or belladonna. After all no treatment succeeds so well as the various bromides, usually in combination. In the strictly sthenic cases chloral may be combined with the bromides where the latter alone seem to be wanting in power to control the convulsions. Possibly morphine in small doses would be helpful in combination with the bromides among those of less physical vigor presenting much the same obstinacy. In the use of the bromides we should aim at mild bromism, pushing these remedies to a point of control of the seizures if possible, and guarding closely, in the mean time any depressing effect upon the general health and any local disturbance of the stomach. It is not a bad practice by any means, in most if not all of the cases where the general tone is lowered, to give tonics before meals, such as iron, quinine, and strychnia, or small doses of arsenic combined with iron, such as Fowler's solution and glycerol of iron. With this last combination I have seen the general health steadily

improve notwithstanding the free and steady use of the bromides, and bromide acne prevented. In many cases strychnia is very serviceable, given cautiously at first, and probably never in as large doses as we commonly give it nowadays. In the main the bromides of potash, ammonia, and soda will be found the most useful, the last two being less disturbing to the stomach and less depressing upon the general health. The bromides should be exhibited after meals and always well diluted. It may be necessary at times to modify the dosage and push tonics; but it is not wise in the main to suspend altogether if any gain has been made in abating the convulsions. After the convulsions have disappeared we should be careful to continue the full dosage tolerated for a year, and then, slightly modified, continue this for a year longer. It would not be unwise to hold on for another year, still modifying the dose and giving it only at bed-time. Even in the most favorable cases a great deal must of necessity depend upon the faithfulness and patience and persistency of the family in observing scrupulously the instructions of the physician as to diet, medicine, and general care.

In the most perplexing and discouraging cases you will still be called upon to do something, for, as Sir Thomas Watson truly says, "patients will have drugs, and you must be prepared to ring the changes upon them." It is certainly true, as observed long ago by Esquirol, "that epileptics are apt to improve for a time under every new plan of treatment." The home care and watchfulness of these unfortunates should follow the lines where the greatest dangers await them, and, if possible, some one should be in constant attendance to prevent injury in falls. Falling into the fire, drowning, severe bodily injuries are not uncommon accidents among the class.

Last, but not by any means least, we have the surgical treatment of epilepsy. For many, many years trephining has been done, especially in cases of plain traumatic origin, with varying and not very encouraging success. The great improvements made in surgery and the added exactness of cerebral localization open up a wider and more promising field in these operations now than ever before. Besides the previously supposed unfavorable cases of long standing, beginning with trauma near or remote, in skillful hands are now being operated on successfully both as to improvement and actual cure.

In a table of one hundred and twenty-one operations for this cause, compiled by Dr. Guy Hinsdale, we find five having passed the test given by Keen, five years without a return of convulsions, and certainly

reasonably classed as cured. In addition twenty-six had gone from two months to five years without a return of the trouble, and hence among these we should at least find a few others, perhaps many, whose recovery may be fairly regarded as complete or reasonably assured. Again we have twenty-four improved, and even this is much for this most miserable class. These operations were performed from one to twenty-eight years after the injury, and from two to fourteen years after the occurrence of epilepsy, the epileptic condition developing all the way from about the date of injury to fifteen years afterward.

Along this line very favorable results have been obtained by Dr. W. L. Rodman, of Louisville, a very creditable proportion of his cases presenting the brightest outlook for complete recovery, though not yet having passed the five years' test of Keen. And just here it seems a little overexacting to require this test at the hands of the surgeon, when the general practitioner is permitted to pronounce recovery complete at the expiration of two years without a recurrence of convulsions. Deducting from all these favorable results the most that can be set down to the moral or mental effect of any operation, it seems to me the most promising returns in this field to-day lie on this line in the wise and skillful hands of the surgeon. Reaching out beyond those of purely traumatic origin, diseased cerebral processes are identified by their own peculiar muscular manifestations and accurately localized and successfully operated upon. The future is certainly bright with promise here.

Briefly, in conclusion, I would say use the utmost diligence to treat this disease early, to discover and, if possible, remove the cause, using the bromides wisely and regularly, and in the mean time guarding your patients' health with such tonics as iron, arsenic, and strychnia, as best in the main; and then remember under the best treatment the per cent of recoveries is very small. And yet this knowledge should never discourage us, should rather stimulate us to our highest endeavors along every line of possible relief in the hope of possible if not probable good. Then I would also suggest the reasonable comfort of the consciousness of having done our best, aside even from the more tolerable condition of the patient by reason of our efforts.

HOPKINSVILLE, KY.

EAR COMPLICATION FROM CHRONIC CATARRHAL INFLAMMATION OF NOSE AND THROAT.*

BY A. H. EDWARDS, M. D.

In the short space of time allowed to us to read a paper of any importance we can only give a few hints or outlines of the intention of our subject, and therefore can not do justice to the subject or ourselves, so I will only give a partial and brief notice to the anatomy of the parts involved in this affection and the treatment. In thinking over the various troubles that may arise from catarrh of the nose and throat, I find none is attended with more pain than non-suppurative inflammation of the middle ear. This form may call for prompt and immediate action from the very nature of its severity, and in order to discuss it intelligently we will have to look at the anatomy of the parts involved, as well as the diagnosis, prognosis, and treatment.

First, we will look at the nose, and we find both cavities lined with a mucous membrane. This membrane also lines the pharynx, larynx, and eustachian tubes. Now we have traced the same membrane from the nose and throat to the inner ear, and it is from the continuity of this membrane that we have ear trouble from catarrh of the nose and throat, which may go on for years with but little trouble; but it is only a question of time when it will prove very serious to the sense of smell, taste, or hearing, and the patient may at any time contract a new cold of the chronic form which may give severe pain in the ears. Then he will summon the family physician, who does what he can by dropping a mixture of warm laudanum and sweet oil into the ear; and too often the disease is allowed thus to go on and not only rupture the drum but involve the mastoid cells, which may necessitate trephining. While a careful diagnosis might have defined a different course of treatment and prevented breaking down of the drum and impairment of hearing, if not total loss, besides the very great pain, and the following discharge which may prove very annoying. We also find in chronic catarrh hypertrophic rhinitis, which involves the mucous membrane and turbinated bones. These bones and tissues become so much involved that it is difficult for the patient to breathe through the nose; often one side will close for a few moments and open, and the other side close, or we may have hypertrophy of one side and atrophy of the other. When we have a hypertrophied condition of the nose we

* Read at the May meeting of the Southwestern Kentucky Medical Association.

may also have the condition of the eustachian tube causing tinnitus aurium and impairment of hearing. But the most distressing condition to the patient is the ringing noise in the ears, which often causes loss of sleep and impairment of the mind. And, again, we may have, from an abraded surface of the mucous membrane, scabs forming a polypus that may close one side of the nose, or may have one or more on both sides, cutting off all air from the eustachian tubes, and from pressure, inflammation, and the want of the physiological action of air, we may have pain, tympanitis, and impairment of hearing, and all of these to a very distressing condition. I will report a few cases:

CASE 1. Mr. L., aged fifty, had been suffering from catarrh for forty years. On examination I found fibrous polypi in both sides of the nose, protruding from the anterior orifice of the nose and extending back and filling the nose, distorting the face; nose looked more like a frog than a nose; tumors extended down the throat. These had been removed three times with forceps and cold snare in thirteen years. His health was broken down, impairment of hearing, with pain in ears and occasional discharge. I called in a physician who gave tonics and built the patient up as well as possible for his condition, and then removed polypi with galvano-cautery; polypi were so large could not use wire loop, and had to use a cautery knife to remove a part before using loop. Patient being very weak made two sittings; had but little loss of blood; kept up the tonics, used local treatment, consisting of thoroughly cleansing the parts with biborate and bicarbonate of soda, water, carbolic acid in warm camphor-water, then spraying the nose with pinus canadensis, carbolic acid, and alboline. Patient made a rapid recovery of health; discharge from ears ceased, all pain was relieved, and his hearing was restored.

CASE 2. Mr. G., aged sixty-two, had been troubled with catarrh for most all his life, and had suffered with severe earache and loss of hearing in one ear, with distressing ringing noise. I found exostosis of turbinated bones of one side and a cartilaginous tumor of the other. Removed this with the galvanic cautery snare, without loss of blood, and removed the exostosis of the other side with dental drill, and smoothed the surface with forceps and galvanic cautery knife. Used the same after-treatment of this case as the other reported. Patient made a good recovery of hearing.

CASE 3. R. C., aged seventy-one, had been suffering with catarrh for many years, and at last was attended with violent pain in the ear,

side of face, and head. I was called out of the city to see him, found patient prostrated with high fever and almost intolerable pain, with three physicians attending him, watching, and expecting him to die. Patient had lost power of speech. I found temporal and mastoid bones very much involved. I diagnosed pus in mastoid cells, with rapid absorption of pus to the brain. I advised trephining; was opposed by the physicians, for the reason that they thought he would die in a few hours, and might die under the operation; however, the family left it to me, and I operated at once, and removed a large quantity of pus. Patient slept well that night, was able to sit up in bed next morning, and came to Paducah for treatment of his catarrh in two weeks.

CASE 4. Miss F., aged eighteen. I was called in consultation with her family physician who had been treating her for a week for earache. Found the young lady prostrated with pain in her head and ears, had high fever, could not eat nor sleep. I diagnosed catarrh of inner ear, with pus in the mastoid cells. I found a hole in drum of ear, but no discharge. History: She had catarrh of nose and throat, and about one year before this attack she had a severe spell of earache, followed by a discharge which only lasted for a few days. I advised operation on mastoid bone at once, and did so by cutting down on the bone with a free incision, and scraped back the periosteum and probed into the cellular bone and removed a large amount of thick pus. I syringed the cavity thoroughly with a warm solution of carbolized camphor-water, and put in a tent twice daily for a week, at which time she was able to come to my office for treatment of her catarrh of the nose and throat.

CASE 5. Miss F., aged fifteen. Had catarrh of the nose for three years; could not breathe through the nose at all; could only hear watch when pressed to ear; had very distressing ringing in the ears. I found sessile fibrous polypi, which had been removed one year before. I could not reach the base of these tumors through the contracted orifice, and decided to do Ronge's operation. A physician gave ether, and I dissected the upper lip and nose proper from their points of attachment on the superior maxillary bones, then drew the detached portion upward, so the anterior nasal cavities were fully exposed and tumors easily reached. Removed them with galvano-cautery with loss of but little blood, adjusted the nose and lip, which were held in place with firm bandage placed on upper lip and extending around the head. It healed rapidly, and the patient recovered, undergoing all the necessary after-treatment.

Hearing was restored to normal condition and there was no disfiguration of face or nose, which is a very great consideration to young ladies. And the doctor who would dare disfigure one of those lovely creatures, just to save time and trouble to himself, is not worthy of the title which we all have the honor to bear—for our calling is second to none in its noble and persevering efforts to restore the sick, heal the afflicted, and point them to the Great and High Physician who never makes a mistake.

PADUCAH, KY.

Translations.

GASTRALGIA AND DYSMENORRHEA IN A NEW CONNECTION.

BY JAMES B. BULLITT, M. D.

[CONTINUED FROM PAGE 225.]

CASE 19. Unmarried woman, twenty-five years of age. Treated in May, 1888. There was headache, dizziness, palpitation, gastric pains, and dysmenorrhea. The turbinated bones and the septum were hypertrophied; cauterization of the same brought relief for a year; headaches then recurring, the right lower turbinated bone was found again swollen, and was cauterized. Since that time there has been complete relief from all pains, including the dysmenorrhea. The periods have occurred regularly and painlessly.

CASE 20. Unmarried woman, twenty-five years of age. This patient came under treatment in June, 1888, on account of catarrh of the throat. On examination it appeared that she had suffered for years from frequent headaches, some difficulty in breathing, palpitation, loss of appetite, nose-bleeds, menorrhagia, and dysmenorrhea. Cautery applied to the nose relieved her of these various ailments and pains, including the menorrhagia and the dysmenorrhea. The last news of her continuing good health was received in 1893, five years after treatment.

CASE 21. Unmarried woman, aged twenty-two. The patient had suffered since her fourth year from frequent and in the last years daily headaches. She was almost completely freed from this by treatment of the nose. She had also suffered from very severe dysmenorrhea.

After the nose treatment there was complete relief from the dysmenorrhea so long as the periods occurred with perfect regularity. Sometimes they were delayed as much as fourteen days, and were then accompanied by some dysmenorrheic pains, which were never so severe, however, as they had been before. The incomplete success in this case seemed to be dependent on the presence of remains of adenoid growths.

CASE 22. Unmarried woman, seventeen years old, March 17, 1894. Patient had gastric pains in preceding summer, and since then loss of appetite. There was often pain between shoulder-blades and light headache; a few swallows of wine usually sufficed to allay this latter. The period had always been painful, lasting four days. The swollen left inferior turbinated and the left tuberculum septi and the thickened anterior portion of the left middle turbinated were cauterized with trichloracetic acid. A few hours thereafter occurred left-sided headache. On awakening the second morning thereafter the patient had gastric pains and severe palpitation of the heart. From this time on there was a feeling of hunger. On the next day the gastric pains and palpitation were much diminished and gradually disappeared. The next period was accompanied by very slight abdominal and back pains.

On May 1st, the intermenstrual period having been six weeks this time, the patient appeared with severe dysmenorrheic pains; these were located chiefly in the left loin and left side of abdomen. On the right side was only a painful, drawing sensation in the lower portion of the abdomen. Cocainization of the right tuberculum septi and of the right inferior turbinate brought relief in a few minutes' time. Cauterization of these localities with trichloracetic acid was then done. From this time there has been no return of the pains.

CASE 24. Unmarried woman, twenty-six years old, June 10, 1894; suffered since puberty from severe dysmenorrhea (abdominal and back pains). Cocainization positive, giving complete relief in a few minutes, then cauterization of the left lower turbinate. On the next day the dysmenorrheic pains had disappeared; formerly they lasted always two days. On July 10th occurred next period, without gastric pains, but with some back pains chiefly on right side and also very much milder than usual. Inspection of nose showed left side entirely free; on the right side the inferior turbinate and especially the tuberculum septi very much swollen. Cocainization of these parts gave relief from the

pain. Cauterization followed, since which the periods have remained entirely painless.

CASE 25. Widow, thirty-three years of age. Periods occur at intervals of five weeks, are sparse, lasting two or three days; for past six months have been accompanied by severe back pains. Examination of the nose disclosed pus welling up on left side between the middle turbinated and the septum. On the right side the inferior turbinated and the tuberculum septi are much swollen. Cocaine trial was positive, therefore cauterization of the right lower turbinated and tuberculum septi. Since this time periods have occurred regularly every four weeks, and have been entirely painless.

CASE 26. Unmarried woman, twenty years of age, October 22, 1894. Menstruated since the thirteenth year; painless up to one year ago. At that time had influenza, and since has suffered severe dysmenorrheic pains, chiefly abdominal. This time the severe pains were chiefly in the left side of the abdomen; the back was entirely free. Cocaine applied to right inferior turbinated relieved pain in three minutes, whereupon cauterization of right inferior turbinate. The patient left completely free from pain, and so remained. On October 29th the left lower turbinated was also cauterized; since then the periods have occurred completely free from pain.

CASE 27. Married woman, suffered from dysmenorrhea during maidenhood. Since marriage, ten years ago (following which came quickly pregnancy), menstruation had been entirely painless up to January, 1893, when the patient had influenza. Since this time there had been frequent headaches and at every period severe abdominal pains "as during her maidenhood." There was swelling of right inferior turbinated, which disappeared after treatment of tonsils for chronic tonsillitis. Since this time the headaches and dysmenorrhea have completely disappeared.

CASE 28. Unmarried woman, thirty-five years old. Came under treatment on account of severe right- and milder left-sided intercostal neuralgia. Cocainization on February 3, 1894, and following cauterization of both lower turbinated relieved this in a few days. The patient also related that since the spring of preceding year, when she appeared to have had influenza, she had suffered from severe dysmenorrheic abdominal pains. Since that time the periods had lasted eight days with pauses of only three weeks, and had been accompanied by an excessive loss of blood; for this the normal condition of organs, gynecological.

logically determined, gave no explanation. Since the cauterization of the nose the periods have been regular, of three days' duration, much smaller loss of blood, and without pain.

CASE 29. Married woman, uterus retroflexed and fixed. Following a "cold in the head" some months before, the patient has suffered uterine hemorrhages every sixteen or eighteen days, which, during first two days, were always accompanied by severe pain; also left-sided headache and severe pain over the ensiform appendix of breast bone. After a positive trial of cocaine on the swollen left inferior turbinated and the tuberculum septi, these parts were cauterized with trichloroacetic acid on December 16, 1893, with the result that the headache and breast pains disappeared, and two days later the period occurred entirely free from pain. The next period occurred after an interval of twenty-four days, and since at intervals of twenty-seven or twenty-eight days. The freedom from pain has continued, though the fixed uterus has not been freed.

CASE 30. Unmarried woman, aged twenty-eight. Menstruated first at the fourteenth year, painless until the seventeenth year. From this time on the period was always accompanied by severe abdominal and back pains, was very copious, and lasted five or six days instead of three days, as had been usual. Patient stated with great positiveness that the trouble was result of a bad cold with nasal catarrh. In the summer of 1890 the patient was treated by cauterization of nose for headache. From this time on the periods became entirely free from pain, and so remained for two and a half years, up to Christmas, 1893, when the patient had a severe attack of influenza. After this attack there occurred again headaches almost daily and very severe, loss of appetite, pain in the arms to the finger tips; so in June, 1894, the right sphenoidal fossa and the left ethmoidal cells were opened, the inclosed pus emptied; the hyperplasia of the mucous membrane on the inferior turbinated bones and the tubercula septi was relieved by means of galvano-cautery and electrolysis. Since that time the head and arm pains have disappeared, the appetite has improved, and menstruation has become again entirely painless, lasting only two days instead of six as before.

CASE 31. Married woman, aged thirty-eight. This patient, mother of eight children, was entirely well up to May, 1891; she had never known any menstrual pains. At that time she experienced slight dysmenorrheic pains. In June, 1893, patient suffered an abortion at

third month, accompanied by unusually severe hemorrhage. Since this time she suffered from permanent pains in right hypochondrium. In the gynecological clinic these were considered as due to a right-sided parametritis, for which she was treated, though without result. At the same time the periods became painful, the pains being only on the right side, in back and hypochondrium. Patient was first seen on October 19, 1894. Physical examination of pelvic organs was completely negative; inspection of nose showed the left lower turbinated very much swollen. Cocaine was tried with positive results; thereafter cauterization with trichloroacetic acid. From this moment the permanent pain in the hypochondrium disappeared. The next period came on November 15th; this time the patient had no pre-menstrual headache nor weakness of memory, which had before been habitual for two days before the period; neither were there abdominal nor back pains. However, the patient came back on November 16th, "because she wanted her leg pain cured by treatment of the nose also." The nose appeared entirely normal, and the cocaine experiment remained also entirely without result; it was then discovered that the cause of the leg pains was *flat-foot*. This further shows the absence of suggestion.

CASE 32. Married woman, aged thirty, November 10, 1894. Was always healthy up to seven months ago, when she suffered the accident of abortion. Since that time patient has suffered from headache, pain in small of back and in left hypochondrium, pain in both arms and in left leg, between the shoulder-blades and in the ensiform appendix of the breast bone. The periods that were before painless always accompanied now by severe back pains. As the patient was suffering at the time she was seen from pains between the shoulders, abdominal pains, and pain in the ensiform appendix, the cocaine experiment was tried on both inferior turbinates and both tubercula septi, and with positive results. Thereupon the left lower turbinate was cauterized, and the turberculum septi also; and on November 19th the analogous portions of the right side. On November 26th the period occurred unaccompanied by any pain.

All these cases described have shown that a dysmenorrhea can be cured by nasal treatment of the inferior turbinated bones and the tubercula septi. It is, however, instructive to consider those cases which have spontaneously recovered.

In one case (27) we have seen that the first pregnancy served to

relieve the existing dysmenorrhea. We will later see that also here the way of relief was through the nose.

CASE 33. Unmarried woman, aged forty, always suffered from dysmenorrhea. She used to have also vicarious nose-bleeds; these disappeared after an examination of the nose had been made with a nasal sound, and were succeeded by menorrhagia. On October 21, 1893, on the third menstrual day, there occurred great dizziness accompanied by vomiting. On this occasion, for the first time, the patient was entirely free from abdominal and back pains. However, six months before consultation there occurred very severe pains in right shoulder-blade, accompanied by dizziness, headache, and intercostal pains. The marked hypertrophy of the right middle turbinated bone was removed, and the galvano-cautery applied to the right inferior turbinated and the tuberculum septi. In fourteen days all the disagreeable pains disappeared permanently.

I will not give more examples of this connection between the genitalia and the nose, as the subject will be treated more fully in another place, where an explanation will also be offered for the "migraine of menstruation."

These cases show that certain parts of the nose play a distinct part in the production of at least two functional diseases (gastric neuralgia and nervous dysmenorrhea), a fact remarkable and up to this time unrecognized.

Of what nature the neuralgic changes in the nose are for the present can only be surmised until a sufficient number of cases have been observed to form more definite conclusions. Still, what is already known is sufficient to divide the changes into two classes:

1. Hyperplastic, exogenous changes in the nose (Cases 25, 26, 27, 28, 29, 30), with lasting relief following removal of the nasal abnormality.
2. Vasomotor, endogenous changes in the nose, chiefly produced through influence of the genital organs.

The nervous dysmenorrhea (which would perhaps be better named the nasal form of dysmenorrhea) shows us that in many girls at the time of puberty the sexual changes are accompanied by parallel changes in the mucous membrane of the nose; these latter can then, owing to the monthly congestion, produce the clinical signs of dysmenorrhea.

The nose seems also to have a relation with the regularity of menstruation as well as with its amount.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 30, 1897, President, Dr. Samuel G. Dabney, in the chair.

Suppurative Inflammation Middle Ear ; Meningitis ; Optic Neuritis.
Operation. Recovery. J. Morrison Ray: I asked this gentleman, Mr. E., to bring his little boy here to-night, as I wanted to show a case that has been of as much interest to me as any I have ever seen. Eight weeks ago last Sunday I was called to see this boy, with the following history: He had been sick in bed for weeks, complaining of violent headache, pain in the back of his head, nausea, etc. There had been an earache for several days before he was sick enough to go to bed. I found him in bed, with his head thrown back, thighs contracted on his abdomen, with legs contracted on his thighs, and he was in a stupor. If you would ask him his name, he would raise up his head, but would make no reply. He had been in that condition for two days. He had a swelling behind the right ear with fluctuation, evidently a periosteal abscess; temperature 104° F., pulse 140. On examining the case critically I found he had a right facial paralysis and paralysis of the right external rectus muscle (same side as the affected ear); with this stupor characteristic cerebral vomiting, high fever, with paralysis of the face, etc. I made the diagnosis of meningitis, as a result of acute inflammation of the middle ear. I told the father that I thought the child had inflammation of the membranes covering the brain; that he had this collection of pus behind the ear, and that the best thing to do was to take the child to the infirmary and operate upon him. However, they objected so strenuously about taking him to the infirmary that I consented to operate at the house. With the assistance of my office associate, Dr. Lederman, we gave the boy chloroform, shaved that side of the head, thoroughly cleansed the surface, and made a free incision, two inches long, trying to make it over the most prominent part of the swelling, carrying it well down over the enlargement, and evacuated two ounces of foul pus. It was not unlike the pus from an ischio-rectal abscess in odor. After laying bare the bone over the entire mastoid, it was found the pus had burrowed around until a probe could

be passed up to the temporal ridge under the periosteum. With a mallet and chisel a hole was made through into the middle ear at a point corresponding to the antrum. Not finding an opening from here into the cranial cavity, I hesitated about going farther because of the surroundings and because of the fact that if he had a diffuse meningitis an opening would not do any good, so I stopped my operative procedures after finding he had no mastoid-cell disease. The wound was packed well with gauze and dressings applied, which were allowed to remain on three or four days, then changed. His temperature fell from 104° to 101° F., and ranged along between 100° and 102° F. for a week. He still had more or less stupor; he would lie all day in bed without making any complaint, but would take food when offered him; passed urine and feces involuntarily. At the end of a week the temperature went up to 105° F., and he complained of great pain in the back of his neck, and a great deal of stiffness there. The dressing was removed, and after examining him carefully I detected fluctuation in the muscles of the neck behind. I made a free incision, evacuated one ounce more of the same kind of pus already described. He improved rapidly after opening the second abscess; the wound in the back of the neck healed quickly, and the one in the mastoid healed by granulation. The second day after I operated upon him the second time, it occurred to me to examine him with the ophthalmoscope. Upon doing so I found that he had optic neuritis in the opposite eye. In the left eye he now has a violent optic neuritis. In the right eye he has a slight amount of neuritis and a perivascularitis. He has vision in only a segment of the eye, the so-called half vision. Yet I can not get him to describe it accurately. He says he sees only half an object. The trouble began eight weeks ago; for six weeks he could not sit up. Whether the case is one of localized meningitis, or a subdural abscess that has become encapsulated, is the question, and I brought him here to get the opinions of those present.

Discussion. Dr. H. A. Cottell: The case forms an interesting chapter in pathology. It is easy enough to see how mastoid disease, meningitis, or any local inflammatory trouble might so operate that the seventh nerve would be involved, but not so easy to figure out where the sixth nerve was caught in the inflammatory process.

Dr. J. A. Larrabee: Some light may be thrown on the case by stating that three years ago I treated this boy for a tremendous anasarca,

having its origin, as do most such cases, especially in children, in scarlet fever. It has been my misfortune to see a great many cases of mastoid abscess and mastoid-cell involvement in children. As a case in point I will mention one which Dr. Ray relieved for me a short time ago; that case would probably have gone on to the extent demonstrated by the boy before us, had not prompt measures for relief been instituted. A boy about as old as this lad was seized with projectile vomiting, pain about the side of the head, appearance of more or less profound stupor, etc. He would lie all day in a condition of stupor except when retching; if food was offered he would take it, but the stomach would immediately eject it, the vomiting being at all times projectile in character. He had a slow pulse, with a temperature of 103° F. I recognized the case as one of ear trouble and called Dr. Ray, who responded promptly, and at my suggestion perforated the drum membrane, although the necessity for so doing did not seem urgent at that time. The pain and other symptoms had been increasing, however, and I insisted upon puncture being made. It was done that night, but no pus was found, and it was not followed by relief. In two days from that time a considerable quantity of pus was discharged, with great relief. The boy came out of the stupor and is now well. I believe, in that case, had measures for relief been delayed a few days longer it would have progressed until the condition would have been similar to the one before us. We should insist upon early interference in such cases; where there is evidence of a mastoid abscess we should make an incision and wash it out after evacuating the pus. The child I have referred to remained in a stupor nine days. In the case shown by Dr. Ray I think the attack of scarlet fever had more to do with the present trouble than any thing else.

Dr. S. G. Dabney: It would be interesting to know whether this case was acute or chronic. Most of such cases occur as complications of chronic suppuration, much less often as complications of acute troubles. It is an interesting case, and from the history, symptoms, and results it would appear to me to be a case of meningitis rather than a cerebral abscess, though this must be largely a matter of speculation. The marked symptoms seem to have been relieved, and apparently some fresh invasion took place after that time. It occurs to me that probably invasion took place through the squamopetrosal suture. In the child the suture in the attic of the ear and in the antrum often remain unclosed for a considerable time. It is probable that infection

took place through that, and that some fresh infection occurred after Dr. Ray made a free opening outside. The case also illustrates the irregular complications which may occur in ear diseases. In the last ten days this has been impressed on me by an unusual case of mastoid disease. The attack followed measles in a child six years old. From beginning to end there was absolutely no pain either in the ear or in the neighborhood; no swelling nor redness over the mastoid, though a good deal in the neck below it, and, what was very uncommon, there was no tenderness on firm pressure over the mastoid; there was profound sepsis and evidently retained pus. On opening the mastoid cells an abscess was found and evacuated, after which all symptoms improved and the child recovered. It simply illustrates what irregular complications we may have in ear disease. In Dr. Ray's case it would appear that infection took place through the roof of the attic and antrum.

Dr. J. M. Ray: The question is what the intracranial lesion was in this case. It seems to me that if there was a rupture of the roof of the attic or antrum, if pus got into the cranial cavity, that it must have formed a subdural abscess, or a pachymeningitis, and, as the symptoms subsided so rapidly, would rather point toward a subdural abscess. Still there has been and is yet swelling of the optic nerve of the left eye—four or five diopters. I did not open the cranial cavity, but simply went into the mastoid antrum. Had the child been in better surroundings I would probably have gone further. As the operation was performed under rather unfavorable circumstances I did not feel justified in opening the cranial cavity, and it seems not to have been necessary, as the case has progressed favorably and the relief promises to be permanent and complete.

Fibro-Myoma of the Uterus. Dr. Lewis S. McMurtry: This specimen is a fibro-myoma of the uterus, removed this morning at my clinic at the Hospital College of Medicine. There was nothing of especial interest about the operation; it was simple, and quickly and easily performed. The specimen, however, illustrates the fact that we may find tubal disease associated with these myomatous tumors. This woman had quite a sharp attack of peritonitis which brought on the necessity for operative interference; and it will be observed there was long-standing disease of the fallopian tubes, inflammatory in character, that the fimbriæ are destroyed. One tube has been opened, and contained pus. We will now open the other, and will doubtless find more of the same

material. The fimbriæ are destroyed and the lumen of the tube is full of purulent fluid. This is the reason these tumors do so much mischief, their association with salpingitis, with pus leaking from the ends of the tubes, producing recurrent attacks of peritonitis and adhesions which cause a great deal of trouble. We know that myomatous tumors themselves, except from pressure upon adjacent structures, do little harm, and it is only when they are associated with other conditions, as in this case, that serious complications result.

Discussion. Dr. J. G. Cecil: The case reported by Dr. McMurtry brings up the question as to what became of these old myomatous tumors, or how did these patients die, as a rule, before hysterectomy became popular as a means of dealing with them. We know how common fibroid tumors are, with the negro race especially, and I would like to inquire from Dr. McMurtry as to how, in his opinion, people suffering with them died: was it by pressure effects, peritonitis, or how? We know that many colored women have carried fibroid tumors for thirty or more years, then the tumors have either atrophied or otherwise apparently disappeared; or that these women have carried such tumors for many years and then have died from other affections. Fifteen or twenty years ago these were not regarded as operable cases, and fibroid tumors were not often removed. How did these patients die; what became of the tumors, and the attacks of peritonitis, etc.? as referred to by Dr. McMurtry.

Dr. L. S. McMurtry: In reply to Dr. Cecil's question, which is a pertinent one, I think that question as well as a number of others have been pretty clearly elucidated by what we have seen of these tumors by abdominal sections. We know what the old idea was about these tumors before we began to operate. Many of them undergo calcareous degeneration; some of them suppurate in the interior and break down; some undergo cystic degeneration; some undergo sarcomatous degeneration; and all these were classified as malignant before we had reached that stage in our operative work that such tumors were removed and examined during the life of the patient; unless a *post-mortem* examination was made, as already stated, these tumors were all classified as malignant. Now we know, with the exception of the sarcomatous changes, that they are not malignant, but they undergo these various changes, producing peritonitis which often results fatally. In cases where the fallopian tubes went on to suppuration, we had either a

hydrosalpinx with inflammation of the tubes, which closed their lumen to a certain extent, or an active salpingitis. Even when they supplicated sometimes the fluid or pus became absorbed, and the tube became cheesy, and, being shut off by adhesions, might remain indefinitely. I think in the olden times, before operative work was done, we did not really appreciate the damage done by fibromata. It is true that some of them at the menopause undergo atrophic changes and pass away, but the number is certainly very much less than formerly supposed. On the other hand, some of them grow very rapidly after the menopause. I have one case under observation now, a fibroid tumor in a woman fifty-two years of age, where the tumor did not make its appearance to attract attention until after the menopause. I think the explanation of Dr. Cecil's question probably is that the tumors become encysted, and after one or two limited attacks of peritonitis the general peritoneum is shut off.

Carcinoma Recti. Dr. John Mason Williams: I have here a specimen epithelioma of the rectum, removed last Tuesday morning at the Norton Infirmary, which is very interesting to me, as it goes to prove that excision of the rectum may be done a great deal higher up than the statements of some of the so-called authorities would lead us to believe. The patient is a man, aged fifty-one years, who first noticed that he had some rectal trouble last August, at which time he thought he was suffering from bleeding piles. He had some hemorrhage from the rectum at that time, and during November he consulted a surgeon, who examined his rectum and told him that it was an incurable case, that he had a cancer, but it could not be cured. Some local applications were made, and the man was allowed to go on, as the surgeon said, to die within twelve to eighteen months. He consulted me for the first time last Saturday. I sent him to the infirmary on Monday, and operated Tuesday morning. The specimen presented represents five and one half inches of the rectum. The operation was done after the Allingham-Cripps method, making a circular incision around the anal orifice, a dorsal incision being made from the anus back to the coccyx, the fossa on either side being opened, the rectum freed all around with the fingers; then, after the bladder was freed, with scissors I divided the tissues between the bladder and the rectum. Five and a half inches of the rectum were removed, and the bowel brought down and stitched to the skin. There was no tension on the sutures

between the gut and the skin margin. I changed the dressings at the end of forty-eight hours, and I had union by first intention on either side where the rectum was sutured to the skin. Anteriorly and posteriorly I put in strips of iodoform gauze for drainage purposes, and at these points healing necessarily took place by granulation. It is now four days since the operation was done, and he has not had a bad symptom. The temperature this evening is 99° F., pulse 80 to the minute.

Cancer of the rectum is unfavorable in patients under forty years of age; it seems that older cases are much more favorable for operation in that the disease does not return nearly so frequently after they have passed sixty years. In this case, where the man is over fifty years of age, I am rather inclined to believe there will be no return of the disease, because all of the growth was removed, and the perirectal tissues were not involved, the growth being from the mucous membrane growing into the interior of the rectum.

Discussion. Dr. Louis Frank: I happened to be present at the operation referred to by Dr. Williams, and was astonished at the amount of bowel he was able to bring down, and the ease with which it was accomplished. It seemed to me that he had at least six or seven inches of the bowel exposed. It was a beautiful and brilliant operation, and I was much more favorably impressed with it than with the Kraske operation, those which I have seen having been performed with considerable difficulty.

Dr. J. M. Williams: This man was examined by a very prominent surgeon who advised the Kraske operation. He said in his examination that he could not pass his finger above the upper margin of the growth, as it extended so far up the rectum, and he thought the Kraske operation was advisable, in this way excising the lower half of the sacrum and the coccyx so that more room would be given. When I first examined him I was not able to pass my finger above the growth, but I gave him an enema, having his bowels move at my office, and then by getting him in proper position I could pass my finger above the upper margin of the growth, and as I was able to do that I felt certain the entire growth could be removed by excision. The patient had been under the treatment of a prominent surgeon in this city since last November, and you can well understand that, had the operation been performed at the time he was first examined (in November) the pros-

pects would have been much more favorable. There is no doubt in my mind but the operation should have been performed then, instead of telling the man that his disease was an incurable one, and allowing him to go on until the present time without any attempt at relief.

JOHN L. HOWARD, M. D., *Secretary.*

Abstracts and Selections.

A NEW AND EASY METHOD OF EXAMINING MALARIAL BLOOD.—For diagnostic purposes the examination of fresh malarial blood films immediately after preparation is without doubt most to be relied on. It is not always convenient, and in the midst of a large practice often very inconvenient, to make these examinations when the films are fresh, and thus one is driven to the examination of stained films at more convenient times. The staining of these films is to me, and I find to not a few others, an uncertain and troublesome process—that is, so far as results that can be relied on for diagnostic purposes are concerned. Dr. Reid, of Shanghai, two years ago suggested to me the examination of the dried, unstained film, having tried, but not having himself succeeded, in finding malarial parasites in this way. Drawing a cover-glass across a drop of blood on the finger tip, as he suggested, I did not succeed in my quest; but some months later I did so without any difficulty by drawing across one cover-glass the edge of another square cover charged with a blood drop. Since last August I have discarded the cover-glass for a strip of ordinary notepaper for the purpose of spreading the film. I now carry in my pocket-book a sheet of notepaper one edge of which is snipped with scissors at intervals of half an inch, each snip being one inch and a half deep. The snipped edge is folded inward to the middle of the sheet, the other half of the sheet being folded over all to keep the strips clean and ready for use. The straight edge of one of these strips is drawn its full half inch through a drop of blood on the finger tip not larger than the head of a pin, the finger tip and the cover-glass being previously thoroughly cleansed in the usual way. If too much blood be taken on the strip, the film will be too thick and useless. The edge of the strip is quickly drawn across the cover glass, the strip being held nearly at right angles to the surface of the glass and before the blood has had time to dry on the paper. In this way is spread on the cover-glass (or slide, if preferred), a fine blood film which dries very quickly, and in it many good fields will be found with the corpuscles lying on the flat surface, practically unaltered. The cover-glass must not be fixed to the slide by any medium which will run between the two, causing every thing to disappear from view. It must be mounted dry. It can be gummed to the slide by a strip

of thin paper with a window exposing the blood smear, when the latter can be examined with dry or immersion lens. With a good quarter-inch objective crescents and the larger pigmented parasites, and with an oil twelfth the smaller pigmented forms, can easily be seen. The examination of a few specimens will acquaint any one with their appearance, so that even beginners have little difficulty in finding these organisms. The specimens being thus preserved can be again and again examined, whereas with wet, fresh preparations a few hours alter them beyond recognition, and the cases are not at hand when study of the organism is convenient. It is well to compare the appearance of these organisms in the dried and undried state. Particular organisms can be studied in the dry film on the slide, their position located by means of a finder, and the organism in question stained and re-examined—a procedure, so far as I am aware, not yet recorded. The film on a slide can be examined with a dry lens without the intervention of a cover-glass; then stained, dried, and examined without cover-glass, or with a cover-glass with or without balsam. If an oil immersion lens is to be used the film when dried and unstained ought to be on the cover-glass, as the air layer intervening between the cover-glass and slide, if the film is on the latter, prevents the oil lens working at its best.

The films should be carefully preserved from dust before they are mounted. Pill boxes serve this purpose well. The color of the protoplasm of the parasite is not quite the same dried as undried, and of course no movement of parasite or pigment is possible in the dried state, but this presents no difficulty with pigmented forms. The unpigmented parasites can not be detected even in the fresh undried film with certainty unless they are seen to move; but even these I have detected in the dried form as rings or signets and then stained them. This method, however, can not be relied on for the detection of unpigmented forms of these organisms without very considerable experience, and should be supplemented by staining or the examination of fresh dried films. For satisfactory work with either dry or wet lenses in examining these parasites a good substage condenser saves much time and trouble.

Blood films treated as I have recommended are subjected to less interference than when fixed by heat, alcohol, ether, or other means, or when treated with one or more staining solutions, washed, dried, etc.—procedures which I have found to so alter and obscure parasites distinctly visible in the dried and untreated film that they could not be recognized as the parasite previously seen except by their surroundings previously registered. While this may not matter in the histological study of these organisms it is somewhat different when diagnosis is concerned, where, as is not infrequently the case, the number of organisms circulating in the peripheral blood is small, and the less they are altered or obscured the better. I have specimens of these parasites of the most typical character preserved for demonstration purposes—no small advantage where demonstrations are wanted and no cases are at hand for that purpose.—*Dr. Neil Macleod, in the Lancet, July 10, 1897.*

REGENERATION OF NERVES.—Robert Kennedy, in a paper read before the Royal Society on February 11, 1897, reports four cases of secondary suture of nerves. In the first the median and ulnar nerves were sutured six months and a half after division in the middle of the forearm. There was total loss of sensation and motion in the distribution in the hand, and marked muscular atrophy. Three days after operation sensation commenced to return; by the nineteenth day touch was correctly localized on all parts of the fingers, and in a month sensation was almost perfect. Improvement in motion was slow and imperfect. In the second case suture of the median nerve was performed three months after complete division above the wrist. Sensation was lost in the median distribution, and opposition of the thumb was impossible. The thenar eminence was markedly atrophied. Two days after operation sensation began to return. Both sensation and motion speedily improved, and at the end of a year recovery was almost perfect. In the third case the median, musculo-spiral, and ulnar were involved in cicatricial tissue at the seat of fracture above the elbow. Two months after the accident there was total anesthesia in their distribution and paralysis of the muscles. Sensation commenced to return on the fourth morning after operation; the case was followed only for six weeks, at the end of which time sensation was present in the fingers, but there was no return of motion. In the last patient the ulnar was sutured eighteen months after section, the sense of pain being totally lost in its distribution. Five days after this returned in the little finger, and in six weeks sensation was almost perfect, though motion had not improved. The author considers that early return of sensation must be regarded as indicating a restored conductivity of the divided nerve. The imperfect or non-return of motion must be taken to imply atrophy or destruction of the muscles. Microscopically he found that both central and peripheral portions of ununited nerves contained bundles of young nerve fibers, to the sides of which spindle-shaped nuclei were attached at frequent intervals. Where the nerve ends were united by a cicatricial segment without conductivity being restored the segment was found to consist of a dense network of connective tissue containing bundles of young nerve fibers in its meshes. Portions excised from the central ends of the nerves showed no trace of old myelin fibers or of degenerated fibers, but were made up of bundles of young nerve fibres, which could be seen taking origin within the old sheaths of Schwann. The author finds no evidence of Krause's ascending degeneration, the old axis cylinder and myelin sheath being destroyed in the peripheral segment in the ultimate portion of the central segment. Young nerve fibers are developed in the peripheral segment as well as in the end of the central segment, even while there is no connection between the two. These young nerve fibers arise within the old sheath of Schwann from the protoplasm and nucleus of the interannular segments. The spindle cells formed from the protoplasm and nuclei of the interannular segments elongate and unite to form protoplasmic threads with the elongated nuclei attached to their sides. The

central portion of the protoplasmic thread develops into the axis cylinder, while myelin is deposited in drops in the outer portions, the protoplasm of which remains with the nucleus as the neuroblast of the new interannular segment. As long as the conductivity of the nerve is not re-established the development of the fibers proceeds only to a certain stage, and as the new fibers three and eighteen months after division present the same characters this stage may be regarded as a resting stage, depending for further development on re-establishment of function. The cicatricial intercalary segments of a spontaneously reunited nerve may be permeated from end to end by young fibers without re-establishment of function if the amount of cicatricial tissue present in the mass is sufficient by its pressure to prevent the passage of impulses.—*British Medical Journal*.

THE SURGICAL TREATMENT OF GASTRIC ULCER.—Leube (*Centralbl. für Chirurgie*, No. 28, 1897), at the last Congress of the Deutscher Gesellschaft für Chirurgie, extolled the advantages of the medicinal and dietetic treatment of ulcer of the stomach. In a large proportion of cases treated by the author's method—which consists in rest, low diet, and hot external applications—complete and permanent cure has, it is stated, been effected in the course of three or four weeks. In some few cases, however (about 4 per cent), it will be found advisable to apply for the aid of the surgeon in order to make up for the failure of internal treatment and to avert a fatal result. Surgical intervention, it is held, is positively indicated in cases of small but frequently repeated hemorrhages from the stomach. A single attack of profuse bleeding is not regarded as an indication for operation. Profuse hematemesis, unless caused by the erosion of a coronary artery, seldom causes death. Operative treatment, especially the performance of gastro-enterostomy, is indicated in cases of gastric ulcer, in which intense pain and frequent vomiting lead to the diagnosis of spasmodic stenosis of the pylorus. When these symptoms do not yield to rest and medical treatment, and the patient is threatened with death from inanition, the surgeon should be called in at once. Surgical intervention, the author states, is not generally required in cases of perigastritis and consequent adhesion of the stomach to adjacent parts, but only when the inflammatory adhesions have formed a swelling which can be distinctly felt through the abdominal wall. In such an instance, where probably carcinoma would be suspected, exploratory laparotomy should be practiced, and, if possible, the tumor removed. Laparotomy is certainly indicated in cases in which the ulcer has opened into the peritoneal cavity. The operation, it is urged, should be performed early, as the prospects of success are very slight if it be delayed until an interval has expired of ten hours from the actual time of the perforation. At the same sitting of the Congress an elaborate review of the surgical treatment of gastric ulcer was given by Mikulicz, who, while agreeing in many points with Leube, advocated more frequent surgical intervention on the grounds that the disease, having a tendency to relapse, is more likely

to be effectually cured by radical operation than by expectant and medicinal treatment. In cases of open non-complicated ulcer of the stomach surgical intervention, he holds, is indicated by the presence of symptoms which directly or indirectly threaten the life of the patient (frequent bleeding, increasing emaciation, commencing suppurative perigastritis), and when suitable and prolonged medicinal treatment has after repeated trial given but temporary relief, and the working capacity and comfort of the patient are much disturbed by gastralgia, vomiting, and dyspepsia. Mikulicz, in cases of open gastric ulcer indicating operative interference, is opposed to excision of the affected portion of the stomach; and of the two remaining operations—pyloroplasty and gastro-enterostomy—prefers the former. Prompt surgical intervention he states is indicated in cases of perforating ulcer. The success of such intervention would be much favored, he holds, by an empty state of the stomach at the time of perforation, and by an early operation. The prospects of a good result are four times better when the operation is performed within the first twelve hours than when laparotomy has been delayed beyond this period.—*Ibid.*

TWO CASES OF FRIEDREICH'S DISEASE.—Case 1. In a woman, now aged twenty-nine years, symptoms of the disease commenced at the age of thirteen years with difficulty in walking, and although she was for some time an out-patient at a hospital she has since then become progressively more feeble. She is by no means undersized, and she has fair hair and blue eyes. Her features are a little coarse. Mentally she is inclined to hysterical symptoms, as evidenced by a desponding tendency as regards her condition, and she is apt on slight provocation to dissolve into tears, but in spite of this she is able to appreciate a good laugh. She reads, writes, and crochets a little, and she is able to use a knife and fork, although there is some difficulty in accurately gauging the position of the mouth when food is conveyed to it on the fork. Sensation is generally good, and the patient considers that of the right half of the body to be more acute than that of the left. The only abnormality seems to be a deficiency of sensation in the feet and in the lower half of both legs, this being due apparently to the local condition of the skin and to deficient circulation. She can not walk even with help, and on attempting to do so she drags her legs along the floor. The thighs can be flexed but not the ankles, the foot is extended, and flexion by manipulation of the ankle-joint is deficient. Irregular, jerky movements of the head and neck are present, but none of the legs, and none of the arms except on attempted action to lay hold of any thing, when the object is often missed, and the same non-success attends an attempt to touch the tip of the nose with the finger, and the attempted approximation of the corresponding finger-tips of the two hands with the eyes closed, while she had sufficient control over her hands to be able to crochet fairly well. Her speech, though thick, labored, and hesitating, is perfectly intelligible. The tongue is protruded straight, though there is the same jerky irregu-

larity of it as is present in the head and neck. The plantar reflexes are increased, the knee-jerks are absent, and there is no ankle clonus. The rectal sphincters are natural, the bowels requiring an occasional aperient. The bladder shows no loss of control, but there are occasional attacks of retention of urine lasting for two or three days and requiring the use of the catheter, and her mental condition at these times has a tendency toward hysterical manifestations. These attacks of retention have been present for years, sometimes following menstruation, an otherwise natural function. There is no implication of the pupil, but nystagmus of slow character is present, being lateral in direction, brought into play by lateral movements, and not present when the eyes are fixed. Most of the power in the muscles of the lower extremities remains in the extensors of the thigh. The joints move freely except the ankles, flexion of these being deficient from shortening of the calf muscles. Knee-joint flexion and extension are easily performed by manipulation of the limb. The muscles are wasted, their place being apparently supplied intrinsically and extrinsically by a deposit of fat, which is present in good quantity over the external surfaces of the buttocks. The feet and the greater part of the legs are congested, thickened, and a little puffy, this condition being apparently induced by the helplessness of the limbs. The second and third left toes are a little webbed. The fingers share in the deficiency of circulation, but not to nearly so great an extent as the feet.

Case 2. The patient is thirty-four years of age, and is the sister of the patient in Case 1. The symptoms commenced at the age of ten years with difficulty in walking. The patient is dark-haired, her complexion is muddy and thick, and she is of slighter build and less stout than is her sister. Clinically the patient resembles her sister in all respects as above detailed, but she differs in that her feet are less blue and edematous, the condition extending only about three inches above the ankle-joint and not reaching nearly to the knee as in Case 1, and also that she has no attacks of retention of urine. Her grasp is strong when she lays hold of any thing, and she is able to make trimmings for the dead. She was confined on July 27, 1882, the child, a male, being still-born. Labor was premature (at the eighth month) and was followed by considerable hemorrhage. At this time she could walk with difficulty. On December 25, 1895, she fell and fractured the neck of the left femur. It united firmly, but she has not recovered the previous use she had of the limb, and it is now practically helpless, whereas the right limb can be flexed at the hip-joint. On examination the leg is an inch and a quarter shorter than the right. Flexion, eversion, and rotation outward of the hip-joint are all deficient and when lying on the bed the foot is everted. The great trochanter is a little prominent and somewhat thickened, and its upper extremity is higher than it should be. There is little difference in the circumference of the two limbs, as the right and left calves in greatest circumference measure respectively ten and three quarter inches and ten and a half inches.

In both cases the heart, lungs, abdomen, and urine are natural, there are no visceral crises, and ocular paralysis is absent.—*Dr. T. Armstrong Bowes, in the Lancet, July 10, 1897.*

THE LOCAL APPLICATION OF SALICYLATE OF METHYL IN RHEUMATISM.—Lemoine (*Sem. Med.*) reported to the Soc. Med. des Hôpitaux the results of treating nine cases of rheumatism by the external application of salicylate of methyl according to the method of Linossier and Lannois. He finds that thus applied it acts in acute articular rheumatism more rapidly in relieving pain than salicylate of soda given internally, and in doses of 154 to 185 gr. causes neither vertigo, deafness, nor tinnitus. It is excreted in the urine as salicylic acid, the amount eliminated being equal to one tenth of that used externally. The required quantity of oil of wintergreen, which contains 90 per cent of methyl salicylate, is poured on a compress, covered with gutta-percha tissue, and kept in place with a bandage. It is best to apply it directly to the painful part, but if this is inconvenient it should be applied to the surface of a limb, the good results being chiefly due to its absorption into the general circulation. In the discussion which followed, Siredey stated that the treatment in his hands had been equally successful against the lightning pains of locomotor ataxy, and the pain of Pott's disease. He, however, found that 20 to 30 drops of the methyl salicylate was a sufficiently large amount to use. He had met with one case of intolerance in a woman with acute gouty arthritis, who after 50 drops had headache and tinnitus. Linossier said that this was the only case he had heard of, and the method had the great advantage of avoiding such complications, which were probably of gastric origin.—*British Medical Journal.*

BACILLUS OF YELLOW FEVER.—The superintendent of the Institute of Experimental Hygiene at Montevideo, J. Sanarelli, announces that he has succeeded in isolating a bacillus from the blood and internal tissues of yellow fever patients, which produces the disease in animals inoculated with cultures of it, and also in man. The shape is that of a rod with rounded ends, growing in pairs or small groups in the cultures, developing on the usual media, with a specific appearance resembling a wax seal on a letter, when first developed ten to twelve hours in the oven and then the same length of time at the ordinary temperature. In the oven the culture develops iridescent and transparent, while at the ordinary temperature it forms shining, opaque drops, like drops of milk. It is pathogenic for almost all animals, producing a cyclic disease, lasting from five to twelve days, "analogous to the disease observed in man." He has also succeeded in isolating the toxin developed by the bacillus and producing the same disease with it as with the cultures direct. Two persons inoculated subcutaneously, and three with intravenous injections of comparatively feeble doses of the filtered cultures, developed the typical picture of yellow fever, with all its clinical and anatomic manifestations. He is now engaged in sero-therapeutic experiments, which already promise well.—*Semaine Med.*

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MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

On the 5th, 6th, 7th, and 8th instant this vigorous and far-famed society will hold in Louisville its twenty-third annual meeting. The gathering will be representative, not only of the best physicians and surgeons of the great river valley for which it is happily named, but will call to its sessions not a few men of note from the Atlantic and Pacific slopes.

Our local augurs, who are responsible for the success of the meeting, estimate the expected number of delegates at from three hundred to six hundred, while visiting doctors from the city and surrounding country will cause the number to approximate the imposing figures of the great national and international medical conventions.

The programme is full and promises profitable work in the general sessions and in the sections, while the social features will be found to stand in happy contrast with the dusty and desiccated face of the country through which our guests have tediously ridden to our doors.

Welcome—though quarantined against by North and South, our city, our institutions, and our homes are open to you. Come, and welcome. Here you shall find no nosing health officer, no fulminating cordon, and no yellow flag of pestilence, for we stand to-day posed in expectant friendship under the stars and stripes of liberty, the milk white flag of peace, the red cross of benevolence, and the flagon of good cheer.

Notes and Queries.

APHASIA.—Karl Bok (*Festschr. des Stuttgart. aerztl. Verein.*, 1897,) mentions that the prognosis depends on the site and nature of the lesion. Incurable lesions may preclude improvement even in the slighter cases of aphasia. Extensive progressive lesions are, of course, worse than circumscribed ones. Hemorrhage, embolism, thrombosis, include the majority of cases of aphasia. If death does not occur, even the worst disturbances of speech may be recovered from; while, on the other hand, even slight affections of speech may persist throughout the remainder of life. Age is an important factor. Children may learn to speak again even after extensive damage to the speech centers, whereas small lesions in old people may produce a lasting aphasia. The individual power of learning undoubtedly plays a part in the result. The longer the aphasia has lasted without any tendency to improvement, the worse the prognosis, and this is also the case where the intelligence steadily fails. In the didactic treatment of aphasia it must be taken into account whether the lesion is capable of recovery, whether it has progressed slowly or quickly, and whether the intelligence is involved. It is well to let some time elapse before commencing the treatment, if it is to be ascertained whether the result is due to the treatment. The kind of aphasia, whether motor, sensory, or amnesic, must also be taken into account. The object of treatment is to restore the conduction of impulses along the usual paths or to open up new paths. The treatment of amnesic aphasia lies in a strengthening of the defective recollection of words. The words must be learned by heart, and then short reading exercises adopted. The exercises should be performed in front of a mirror, in order to recall the recollection of the necessary movements. In motor aphasia other parts of the brain may take on function. Single sounds, then syllables, and lastly words, are taught. Writing exercises with the left hand should be performed along with the articulation exercises. The patient should be taught to form words from printed letters. The treatment of sensory aphasia is more difficult. The first attempts are made by means of written language. Lip reading should be developed, and reading, writing, and other exercises combined with it. The case may be much complicated by a combination of different forms of aphasia. Much patience is needed. The results so far encourage further efforts. In the absence of complete recovery, a considerable improvement may be obtained.—*British Medical Journal*.

TRAUMATIC RUPTURE OF THE HEART WITHOUT EXTERNAL LESION. Wounds of the heart, while not actually rare, are by no means common. Occasionally recovery may follow such injury without surgical intervention,

but as a rule death results. Recent experience in several recorded cases has shown that incised wounds of the heart are susceptible of successful surgical treatment, provided of course the lesion be not too extensive, the loss of blood not too large, and that measures of relief are employed without undue delay. Contused and indirect wounds of the heart are even less common and naturally more difficult of recognition and correspondingly less amenable to surgical intervention. An interesting case of this sort, in which death took place suddenly a month after the reception of the injury has been placed on record by Groom. (*Lancet*, May 1, 1897, p. 1202.) A lad, sixteen years old, was caught between the shaft of a trap drawn by a runaway pony and some wooden railings. He was kept in bed for five days, but remained weak and unwell.

A month after the accident, while walking out of doors, the young man fell on the pathway, face downward, and was soon dead. Upon *post-mortem* examination no sign whatever of injury to the superficial structures or the ribs was found. When, however, the pericardium was opened the sac was found to be filled with blood, some of which was clotted. On removal of this and turning the heart over without detaching it, a hole about the size of the end of a little finger through the middle of the posterior aspect of the left ventricle was discovered, the actual size of the rupture being about a third of an inch. On removing the heart and opening the ventricle the myocardium was found to be perfectly sound except at the spot mentioned. The hole was quite conical and bulging when the little finger was introduced, and the rupture external and consisting merely of the pericardial covering of the wall.

The conclusion is reached that the accident had caused a partial rupture of the inner portion of the wall of the left ventricle at a spot opposite to the point at which the shaft of the trap had pressed, and that the blood pressure had during the month intervening between the accident and death caused an aneurismal bulging of the weakened part, its wall becoming thinner until ultimately it burst. The rupture viewed from the interior of the ventricle looked much like a bullet-hole.—*The Journal of the American Medical Association*.

KOLANIN.—Dornblüth (*Berl. klin. Woch.*, June 21, 1897,) first draws attention to the stimulating action of the kola nut. The investigations of Knebel and Hilger have shown that the nut contains no alkaloids, but a glucoside named by Knebel "kolanin." In the ripe or dry fruit this may be split up into glucose and caffeine. This necessitates a very careful preparation of the nut if the glucoside is to be retained. Kolanin is decomposed by the saliva or by the gastric juice. The author has used this kolanin in tablet form, prepared after Knebel's directions, in a great number of patients. It rapidly restores the strength after exhausting work without any ill effects. It is considerably superior to caffeine. In one case, however, that of a hystero-neurasthenical woman, 0.2 g. kolanin produced a

feeling of uncertainty or trembling in the hands. The good effect of this agent was apparent in cases of exhaustion and in neurasthenics, but in the latter the result was only temporary. Improvement was also observed in cases of neurasthenic cardiac depression, but here again the effect was temporary, and another tablet had to be taken in one to one and a-half hour. Monobromate of camphor also used in this condition sometimes fails, and may give rise to unpleasant after-effects. In some cases of organic cardiac disease kolanin proved useful. In migraine a beneficial action was also obtained, as well as in headaches following upon mental overexertion and upon alcoholic excesses.—*British Medical Journal*.

PSEUDOSPASTIC PARESIS WITH TREMOR.—Onuf (*Neurol. Centralbl.*, April, 1897,) describes a case of the rare affection to which Fürstner gave the name of "pseudospastic paresis with tremor." A man, aged forty years, a heavy drinker, was struck on the top of the head by the corner of a trap door. There was immediate paralysis of the face and all the limbs, with loss of sensation, but no loss of consciousness. No external injury could be found. After twenty minutes speech and facial movement were completely recovered; power was recovered more slowly in the arms and legs. After four months power was completely restored, but there were curious tingling sensations in the hands; the most striking and troublesome symptom remaining was the occurrence of a violent trembling and shivering of the whole body on the slightest excitement. The deep reflexes were greatly increased, and any attempt to elicit them caused shivering movements of the limbs; plantar and abdominal reflexes were absent. Gait was high-stepping, of spastic type. The pathology of this affection is uncertain. Suggestions have been made that it is a functional disturbance or traumatic neurosis, that it is due to a traumatic lesion of the cervical part of the spinal cord, or that it is due to capillary hemorrhages in the brain. None of these theories, however, will explain all the cases that have occurred.—*Ibid*.

THE CELLULOID BANDAGE CASTS are proposed as a substitute for plaster casts, made by dissolving scraps of celluloid in acetone and spreading it on mull, are highly recommended by Maass, of Berlin, who has applied more than a hundred during the last ten months, and is convinced of their superiority to the usual cast. They are extremely light, elastic, clean, and imperishable, not affected by heat, perspiration nor pus, so solid that no steel supports are required, while they can be made with celluloid hinges when desired for articulations. The technique is very simple; any physician can make them without the assistance of an expert, and the danger from fire is slight; it is impossible for the cast to explode. The only disadvantages are that they take longer to harden, eight to twelve hours (usually having to be made over a cast), and are a little more expensive on account of the acetone.—*Deutsche Med. Woch.*

ARSENITE OF COPPER IN ACUTE INFECTIONS—GASTRO-INTESTINAL CATARRHS OF INFANTS.—H. Kruger reports in the Practitioner a number of cases in which the preparation had a wonderful effect. In a child nine months old, suffering from diarrhea and vomiting, with an emaciated body and a senile face, cold skin and dull eyes, the least nourishment was either vomited or passed undigested through the intestinal tract. A 0.001-100 solution of arsenite of copper was given in teaspoonful dose every ten or fifteen minutes. Besides this a teaspoonful of iced milk was given every half hour. The child improved wonderfully, and on the following day had recovered from the most dangerous symptoms; the vomiting had at once ceased, and the diarrhea was checked soon after. The favorable action of the copper in this case induced him to try still further, and he later prescribed it in powder form in sugar of milk, ordering 1-500 of a grain every hour. Of the many cases treated by him he reports three, in which the action was marvelous, and two cases which died from extreme exhaustion, although the arsenite of copper benefited both vomiting and diarrhea. The action of the remedy is undoubtedly that of a bactericide, as is shown by the rapid improvement in the general condition and the prompt cure of the acute gastro-enteritis. In more chronic cases the results were not quite so satisfactory. The bactericidal power of the drug must be enormous, for in most cases 1-60 of a grain in twenty-four hours was sufficient to relieve the dangerous symptoms, and rarely was it necessary to give more than twice this amount, and never more than three times during the course of the disease.—*Medical and Surgical Reporter.*

THE PROGNOSTIC VALUE OF URINARY CHLORIDES.—Maignan has recently published a series of observations on the quantitative estimation of urinary chlorides in chronic diseases. (*Journ. de Méd.*, April 10, 1897.) In health an adult excretes 10 to 15 grams of chloride of sodium per diem. In certain diseased conditions this figure may fall to 3, or even none, and the author made a special series of observations on the quantity excreted in tuberculosis, and found that the figures varied from 2.5 to 3.5 grams, but the same thing may be found in chronic gastritis, gastric ulcer or gastric carcinoma, and in certain acute conditions, such as pneumonia or broncho-pneumonia. As regards acute diseases the reduction of chloride is of no prognostic value, and may even be compared to that reduction found in copious diarrhea or under certain dietetic conditions, and the diminution is often in proportion to the intensity of the disease. It is therefore quite different in chronic diseases, and the progressive diminution of chlorides (when unconnected with special diet) is often of grave prognosis.—*British Medical Journal.*

THE DURATION OF INFECTION IN WHOOPING COUGH.—Weill, who in 1894 expressed the opinion that whooping cough is contagious only during the premonitory catarrhal stage, has since put his opinion to the test. (*Lyon*

Special Notices.

TAKA-DIASTASE is now marketed in three forms—in powder, in $\frac{1}{4}$ -, $\frac{1}{2}$ - and 1-ounce vials; capsules, $2\frac{1}{2}$ grains each, in bottles of 25, 100, and 500; and Liquid Taka-Diastase, eight-ounce bottles only, two grains of the ferment to each fluid-dram.

In a recent circular Messrs. Parke, Davis & Company state: "We have introduced Liquid Taka-Diastase to meet the demands of those who object to both powders and capsules. In order to satisfy such patients, we know of several instances where solutions have been prepared extemporaneously, but with medicaments or vehicles with which Taka-Diastase is incompatible. Of course failure in such instances was unjustly attributed to Taka-Diastase. Liquid Taka-Diastase will in future, however, most satisfactorily take care of all such cases.

"Under no circumstances should Taka-Diastase be massed. It should be administered either in powders, in capsules, or the liquid form, and during or immediately after meals."

If not already familiar with Taka-Diastase, write the manufacturers at once for monographs, reports of cases, reprints of articles, etc. Taka-Diastase is certainly the remedy in amylaceous dyspepsia.

F. A. REW, M. D., Imboden, Ark., says: My experience with S. H. Kennedy's Extract of *Pinus Canadensis* was so decidedly satisfactory and gratifying that I prescribed it with a positive assurance that benefit will follow its use. On the principle that "all astringents are tonics," I use the *Pinus Canadensis*, in small doses, in pneumonia, bronchitis, typhoid fever; indeed, where the mucous membranes need a tonic, and recognizing the similarity between mucous membrane and the external skin, I use it in erysipelas, nervous forms of eczema, and wherever the skin needs a tonic. It is all I need in many cases of ophthalmia and gonorrhea. Its special therapeutics would fill many pages, and I am satisfied that we will yet find new uses for it.

SANMETTO IN GONORRHEAL INFLAMMATION AND EMACIATION.—I have used Sanmetto in a number of cases of gonorrheal inflammation, and find it all that could be desired. I also consider it as a good constitutional treatment where there is an emaciated condition of the system superinduced by venereal disease.

G. B. FAYNE, M. D., Earlington, Ky.

The preparations of pepsin, made by Robinson-Pettet Company, are indorsed by many prominent physicians. We recommend careful perusal of the advertisement of this well-known manufacturing house. (See this issue.)

LABOR SAVING: The American Medical Publishers' Association is prepared to furnish carefully revised lists, set by the Mergenthaler Linotype Machine, as follows:

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THE
AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XXIV. LOUISVILLE, KY., OCTOBER 16, 1897.

No. 8.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

AN ADDRESS OF WELCOME.*

BY WILLIAM BAILEY, A. M., M. D.

Professor of Materia Therapeutics and Public Hygiene in the University of Louisville.

Mr. President and Members of the Mississippi Valley Association, It affords me great pleasure, on behalf of the medical profession of this city, to welcome you to our hearts, our homes, our city, and our State. I deem it a high honor to represent so worthy a body of medical men, and in their behalf to voice to you our thanks for your coming among us. The generous hospitality of Louisville and Kentucky is known wherever good cheer and warm friendship are appreciated. No truer hearts pulsate in response to demands of friendship than are found in our beautiful metropolis, and in generous measure I give you their welcome.

It is a chestnut that Kentucky is world renowned for the chivalry of its men, for the beauty of its women, for its blooded horses, and for its unequaled product. This latter should be taken by those unaccustomed to its use in great moderation, for it is quite seductive in its influence. A formula for its preparation will no doubt be furnished you; and I will tell you confidentially that the only time that your host will ever turn his back to you is when you are invited up to the side-board and told to help yourself. I shall not speak for the women, for before you leave us you will find that they are abundantly able to speak for themselves.

*An address of welcome in behalf of the medical profession of Louisville to the Mississippi Valley Medical Society, delivered October 5, 1897

We welcome you to a city that in many respects is not surpassed anywhere.

General prosperity, I am happy to inform you, has again assumed command of our forces, retiring general calamity, who has been in command for four years. I hope he will so conduct the campaign that the calamity howler will be heard no more in the land. According to our worthy health officer, this is one of the healthiest cities in the world, and his reports show an unprecedented low rate of mortality during the summer months. Indeed he has been advertising it as a summer health resort. In this connection I remark that a greater number than ever before of our physicians have sought health and recreation elsewhere during the summer. Mark you, I do not intimate any causal relation between these two facts.

Louisville stands for all that is the highest and best in the medical world. She claims to be and to have been in the forefront of the progress so evident in our profession.

Her schools have always maintained an enviable position among the educational institutions of the country. She has furnished many of the lights that have shone resplendent in other cities; and I can safely say that, if any other great city or school is in need of talent to adorn them, we can furnish more of it on shorter notice than any other city known to me. Many of us, no doubt, from our superabundance would gladly supply your want. Joking aside, Louisville has always had in its faculty men of more than national reputation. No city of its size possesses a profession more devoted to the best interests of medicine than does Louisville. She is noted for the character and number of her medical societies. Admirable work has been constantly done by some of these for many years, and yet they show no sign of waning.

I beg leave to make an earnest appeal just here for medical societies. They have been properly styled the post-graduate schools of the profession. Every medical man ought to have active relation with some medical society. I assure you, after an experience of forty years, that no relation pays so well.

I welcome you also in behalf of the State Board of Health of Kentucky. This board, under laws enacted for the protection of its citizens, quickly made the law operative and quickly rid the State of that horde of barnacles that so greatly hinder the ship in its onward career for the betterment of the profession and of mankind. I welcome you as the second great body of medical men in this country, second only

to the American Medical Association. I welcome you as representatives of the profession scattered throughout this great Valley of the Mississippi. I recognize you as worthy of this distinction, for are you not veritably the pillars of the communities in which you live?

We recognize on our programme the names of men eminent for their learning and skill who are from other parts of our great land. These likewise we gladly welcome to our city, and trust that when they leave us, if that must be, that they will have only the most pleasant recollection of their stay with us.

Gentlemen, I welcome you for what you have done for the science and art of medicine. I come to you with no pessimistic tirade as to the position of the profession now or as to its hopes for the future.

We live in a glorious age, an age resplendent on account of its achievements, things already accomplished, and yet I imagine this is but an earnest of the things to be realized in the near future. With great pleasure I listened to the address of Dr. W. W. Keen, of Philadelphia, at the semi-centennial of the American Medical Association in May last, upon the progress in surgery in the fifty years just passed. As he admirably portrayed one after another the great things that have characterized the progress of surgery and associated therewith names hence immortal, I could but wish that I too was a surgeon, so that I might feel more fully identified with this great advancement so well described.

I was compelled by his delineation to look around me and see if the man of medicine was standing still, to see if he was only permitted to view as from a distance the panoramic display as the surgeon marches on to glory. In this admirable address we have passed in review: (1) The improvement in the teaching of surgery, the advancement from the two didactic courses of three or four months each to the present extended graded system; the emphasizing of the practical part of instruction; the influence of medical libraries and hospitals. (2) The influence upon medicine of the allied sciences. A completer knowledge of physics has added much to surgical progress. (3) Anesthesia, both general and local. Who can estimate the part of these in the progress of surgery realized to-day? (4) Asepsis and antisepsis. This is the field of the scientist rather than of the surgeon. Fortunately the facts of science in this department are of more easy application in surgery than in medicine. This has been a god-send to the surgeon, not due in any sense to his superior knowledge or acumen, but a something ready prepared for his hand which many were slow to avail themselves of.

But for bacteriology and animal experimentation the present advancement could not have been possible. The benefits of these are by no means limited to surgery but are applied by the physician as well, and to my mind it is a much greater victory to be able to combat a toxic condition in the very citadel of life itself than it is to amputate a limb and by asepsis secure union by first intention.

However, claim has been made for surgical progress until it is with the greatest diffidence in the presence of the disciples of the scalpel that I lay claim to being a doctor at all. I feel like I am being read out of the party and scarcely have part or lot in this progress; yet it is for me as well as him, and modestly I beg leave to claim progress for medicine as well as surgery. I call attention in support of this claim to what Dr. Keen so well described as the surgical paradise, when all the surgeons shall become doctors. We welcome you, brother surgeons, to this paradise, and hope the day will dawn soon when there will be not so much need of your brilliant technique in operation, when "not so many ovaries will be absent from the body but present in the spirit."

We can not exaggerate the importance of bacteriology and animal experimentation. A blow to either of them is a blow to the most vital interests of the human race. Animal experimentation is menaced in our country by the bill passed by the House and that will be pending before the Senate when Congress shall meet again. I call your attention to and repeat a memorable phrase from Dr. Keen upon this subject:

"Bacteriology would not now exist as a science, nor would accurate modern surgery and a large part of medicine be possible, had experiments upon animals been prohibited, as some zoöphilous men and women, who love dogs better than men and women and even little children, desire."

We owe it to ourselves and to the best interests of mankind to see to it that every thing possible is done to prevent this dire calamity, for it will prove worse than a universal strike which stops the wheels of commerce. Our hopes for the future will die from inanition though so bright at this time.

Vigilance should be our motto, and let us see to it that every man akin to the law-making power shall be intelligent upon this vital question. If need be, let the influence of this great profession as the influence of one man be exerted for this cause. Let each of us see that his senator at least is informed as to the importance of this subject

and the disaster that would follow such an enactment before the Senate shall come to a vote upon this bill.

This society should make itself felt in some way in preventing this measure that would practically estop any further progress in scientific medicine.

It is cheerfully confessed that antiseptic surgery had its beginning with Surgeon Lister, but you are compelled to admit that it had no scientific basis until Pasteur came to its relief. This has been supplemented by Koch and a host of others who are not surgeons but physicians. We are dependent upon the scientists for what has been so ably done in this department, and no doubt we must continue to look to the laboratories for further progress. No surgeon engaged in active practice could possibly give the time necessary for this arduous investigation even if he should be equipped for this work.

As a result of bacteriology and animal experimentation we have established the propriety of serum-therapy. To my mind nothing of greater importance has been accomplished for medicine and surgery in this century. Its possibilities are beyond any present conception. The possibility of cure for many diseases heretofore classed as incurable, and not only this but likewise the possibility of rendering man immune to so many diseases that have played such havoc among all nations of the earth. Time will not permit to elaborate this subject as I should be pleased to do.

The scientists have likewise enabled the sanitarian to take decided steps forward in the last few years. Sanitation is so dependent upon a knowledge of the causes of disease that we hail with delight the established results of these toilers in this work, and we earnestly bid them god-speed in their labor for the betterment of mankind.

It is not proper that I should occupy more of your time. In conclusion allow me again to tender to you in behalf of the profession of Louisville their warmest welcome.

LOUISVILLE.

SUMMER DIARRHEA IN INFANTS.*

BY R. B. GILBERT, M. D.

Professor of Diseases of Children and Demonstrator of Anatomy in the University of Louisville.

Under the name of summer diarrhea I propose to discuss that form of diarrhea that is so prevalent in hot weather, and which carries off so many infants every summer. The laity have adopted the very expressive name of "summer complaint," a term well understood by every mother who has nursed an infant through the second summer. Dr. J. Lewis Smith, in his practical work on Diseases of Children, in the latest edition, calls the prevailing summer diarrhea of infancy "intestinal catarrh or entero-colitis." In the older editions he treated the subject under the name of inflammatory diarrhea. Prof. Rotch, of Boston, in his recent work, calls it "fermental diarrhea," and Dr. Louis Starr, in the American text-book on the Diseases of Children, calls it "subacute milk infection." The disease is commonly called entero-colitis by physicians in this part of the country. There are not a few physicians who call any and all severe forms of infantile diarrhea "cholera infantum."

It is evident that a revision of the nomenclature of enteric diseases of infancy is needed at this time, especially on account of our constantly increasing knowledge of the etiology of these diseases. The nomenclature should be simplified in order that physicians in different parts of the country should, by using identical names, be the better able to aid one another in their investigations.

The summer diarrhea of infants is the name by which we prefer to call it, and by which we mean that form of subacute inflammatory diarrhea that is the scourge of infant life in all our great cities. That the subject is one worthy of our closest attention goes without saying. When we consider the high rate of mortality caused by this disease we are forced to acknowledge that there is yet very much to be learned about its causation and treatment.

A recent annual report of the Health Board of New York City shows that there was for one year 2,789 deaths from diarrheal affections, and of these deaths, 92 per cent occurred in children less than two years of age, thus showing how great a sacrifice of life infantile diarrhea causes in that city. The proportion of mortality is of course

* Read before the Kentucky Medical Society at Owensboro, Ky., May 6, 1897.

less in smaller cities, and in the rural districts it is comparatively insignificant.

The typical summer diarrhea begins with the first "spell" of hot weather, that is when the temperature rises to seventy degrees daily for a week or ten days consecutively. There is a difference of opinion among pediatricians as to the exact etiology of the disease. The one fact that is undisputed and is universally admitted is, that the summer season, stated in a general way, is a prime factor in the causation of this annually recurring diarrheal epidemic. The solar temperature does not of itself cause the diarrhea, as is evident from the fact that hot weather prevails in the rural districts as well as in the cities, and yet the disease is very rare in the country.

The cause is found in the state of the atmosphere engendered by the heat where unsanitary conditions exist, as in large cities. Not only does the vitiated air have a direct effect upon the blood and nervous system of the infant, but the myriads of noxious germs floating in the summer air find ready lodgment in the milk supply when left exposed, even if it be but for a few minutes. Milk is one of the best culture mediums for bacterial life, and when taken into the alimentary canal it at once becomes a "hot-bed" for the rapid multiplication of bacteria. Doubtless the poison generated by the growth of bacteria in the milk is the direct cause of a majority of the cases of diarrhea in infants. It is not surprising, therefore, that Dr. Starr has given the disease the significant name of "subacute milk infection."

The impurities of the air in a large city are numerous. Among the most commonly found noxious gases are the carbonic dioxide, sulphuretted hydrogen, and carbonous oxide. There are also many solid impurities in the air of a large city. These particles consist largely of organic matter, such as minute particles of various forms of insect life, especially the house-flies and their larvæ, together with the excreta from animals. These matters, drying upon the streets in the hot sun, are readily ground into impalpable powder by the horses' hoofs; this with the limestone dust is wafted about by the wind and is carried into the living-apartments to be inhaled by the people. Besides these impurities there are several varieties of vibriones and bacteria, as already referred to.

Prof. Tarnier, in his course of lectures in 1890, referred to M. Miquel's researches on the relative abundance of micro-organisms in different places. In the Park de Monsouris in the south of Paris

Miquel found 480 micro-organisms in one cubic meter of air. (A cubic meter is little more than one square yard.) In the Rue de Rivoli there were 3,480 in one cubic meter. In a room in the Rue Monge he counted in the same space 36,000. In the atmosphere in the old Hospital de Pitie he found 319,000 to the cubic meter. In fifteen grains of dust scraped up in a room in the Rue Monge there were found 2,100,000 micro-organisms. Thus the value of residence in the country is scientifically demonstrated.

It may be briefly stated that the annually recurring epidemics of summer diarrhea are mainly due to the action of poisons generated by the growth and multiplication of bacteria which are taken in by the air and food, chiefly milk. Acid fruits and vegetables and milk containing an excess of casein fed to infants will occasionally cause diarrhea.

The symptoms of this form of diarrhea are easily recognized. The stools become thinner and more frequent. They consist of undigested milk, especially the cheese principle, masses of fat, mucus, epithelial cells, and occasionally a few drops of blood. The stools are often green, becoming grassy green in the sunlight. This green color is due to the action of acid upon the bile. These conditions may go on for several weeks; the anatomical lesions of the intestinal mucous membrane gradually become more serious, the child loses flesh, his cheeks become prominent, and his eyes seem sunken in their sockets. There is more or less fever, but not of high grade. The stomach becomes irritable after a few days, and there is frequent vomiting. The abdomen is distended by the excess of gas in the intestines.

The most frequent complications are erythema about the buttocks and thighs, abscesses over face and scalp, and hypostatic congestion of the lungs. Strumous children may have enlarged lymphatic glands, especially those of the mesenteric glands.

The prognosis will be influenced by the surroundings of the patient and its family history. If there be no scrofulous or tubercular tendency, and there be good hygienic surroundings, there should be very few cases lost.

Treatment. From what we know of the causation of this disease, it goes without the saying that proper preventive treatment would save many lives. Fresh air and wholesome food are essential as preventive measures and indispensable as curative measures. The question of infant feeding is indeed perplexing. An infant sick of an inflammatory diarrhea should for the time being be taken off milk diet entirely.

The intestinal bacterial flora multiply and thrive best in milk. If milk be excluded from the food, the character of the germs rapidly and radically changes. Milk should be excluded for at least three days, in which time the diet should consist of fresh egg albumin with a small portion of common salt. The white of a fresh egg beaten up with crushed ice and a "pinch of salt" is most acceptable to the stomach and is sufficient nourishment. Pure sterilized water may be given freely. Soups, meat broths, and starchy mixtures should be rigidly excluded. An old-fashioned and yet excellent and palatable food is fat country bacon. Bacon broiled half-done will be eaten by an emaciated infant with a hearty relish, and I have seen it work wonderful changes both as a diet and as a remedy in protracted summer diarrhea.

It is well to begin the medical treatment by giving a gentle saline laxative; especially is this useful if the stools consist of undigested milk and green acid mucus. A formula that seems to be most useful is as follows:

- R Hydrated magnesia (Phillips'), ℥ii;
 Ess. pepsin (Fairchild's), ℥ii;
 Tr. opii, gtt. x.
 M. Sig: Teaspoonful doses three hours apart to child one year old.

This mixture being an antacid, digestive, and anodyne, it meets the leading indications. Antiseptics and astringents are of doubtful utility, and are more or less disagreeable to the taste. Unnecessary medication should be cautiously avoided.

A most potent adjunct in the management of protracted summer diarrhea is intestinal irrigation with the normal salt solution, one dram chloride of sodium to the pint of warm water. The colon is usually the seat of most of the inflammatory action, and fortunately it is easy of access by this treatment. With a No. 18 soft rubber catheter attached to the nozzle of a fountain syringe filled with the salt solution, one can easily distend the colon. The hips of the child should be slightly elevated, the catheter lubricated with soap (not grease) and gently introduced into the rectum; distending that will allow the catheter to pass up into and beyond the sigmoid flexure, whence the water flows easily around to the ileo-cecal valve. The child will make frequent expulsive efforts, expelling the water in a stream from the bowel. The irrigation should be continued until the water returns clear and free from fecal matter. I often use as much as a gallon at one sitting.

The way in which this irrigation does good is by cleansing the inflamed mucous membrane of acrid secretions and decomposing milk curds, and at the same time giving it a warm saline bath, which is most agreeable and beneficial to any inflamed mucous membrane, and especially so to that of the intestine. A fretful, feverish infant will, after free washing out of the colon, drop into quiet and refreshing sleep, lasting for several hours.

A brief account of a severe case will serve to illustrate this plan of treatment. H. F., aged seven months, and being "bottle-fed," began with diarrhea early in June last. The usual domestic remedies, paregoric, chalk mixture, etc., were persistently used for three weeks, with only temporary relief. The child was reduced to a mere skeleton. He had, as complications, eczema intertrigo, abscesses about face and scalp, and follicular stomatitis. Along with the stomatitis there was a parotiditis on the left side with occlusion of Steno's duct. The saliva could not pass into the mouth from the affected gland, and formed in a large cyst under the skin over the parotid. I did a little operation which made an artificial tract for the saliva to flow into the mouth. By passing a large curved needle armed with a double silk thread from the inner side of the mouth, opposite where the second upper molar tooth should be, out through the cheek and through the salivary cyst, leaving it there a few days, a fistulous track was established which answered the purpose of a Steno's duct.

The treatment of the diarrhea consisted in withdrawing milk diet absolutely and substituting egg albumin and daily irrigation of the colon with the warm salt water. The medicine given by the mouth was the mixture of lac magnesia, essence of pepsin, and tincture of opium above referred to. Improvement was slow at first, but the case made a good recovery in about four weeks.

Different theories are held as to how the salt solution acts. Epstein, of Germany, in the summer of last year practiced the subcutaneous injection of a salt solution in acute digestive disorders and cholera infantum. He reports prompt improvement and quick cures in cases that were apparently hopeless. Epstein used two and a half drams of the normal salt solution at a time hypodermically. The favorable action of the remedy is claimed by him to be due to the dilution of the blood.

LOUISVILLE.

Reports of Societies.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Twenty-third Annual Meeting, held at Louisville, Ky., October 5-8, 1897, Dr. Thos. Hunt Stucky, President, in the chair.

The meeting was called to order by Dr. H. H. Grant, chairman of the Committee of Arrangements. Hon. W. O. Bradley, Governor of Kentucky, made an address of welcome on behalf of the city and State. Dr. William Bailey delivered the address (see page 281) on behalf of the profession of Louisville.

The address of the president, Dr. Thos. Hunt Stucky, followed. It was warmly received. He said: In the days of our fathers the traveler along the country roads of the old South had no fear of lack of entertainment when night came upon him. At the gate of a house he halted; a cheery voice bade him alight and hitch; one boy took his horse, another led the way to the guest chamber. When the supper hour arrived he found no extra plate had been laid for him—such extra plates were always ready. And before the meal the host led him to the sideboard, and while the guest poured out a drink turned his back and looked far away. I speak for our whole people when I say that when the guests are such friends and honored associates as you are, gentlemen, our homes and our hearts are open to you, and only at the one time referred to shall our backs be turned upon you.

This spot, near the center of the Mississippi Valley, is a fitting one for our meeting. The physical, financial, and commercial future of our country lies between the Alleghanies and the Rockies; and here too will be found the intellectual force which in coming years will lead this country, and through it the world. Look at the champions the profession of this section has already sent forth: Georgia gave Robert Battey; Kentucky, Ephraim McDowell; Alabama, J. Marion Sims. In general surgery there are no brighter names than Gross, Miles, Scott, Hodgen, and Dudley. In general medicine we refer to Flint, Gaillard Thomas, Bush, and T. S. Bell. These are of the past, but we are not retrograding.

In conclusion he expressed pride in having the association to meet in Louisville.

Dr. Jos. Eichberg, of Cincinnati, read a paper on Typhoid Fever Treated without Cold Baths.

He said the advocates of the Brandt method had shown that constant nursing and watching the temperature was more important in typhoid fever than any drug, but they have done nothing more. He enumerated the disadvantages and dangers of cold baths, and said the lessened mortality under this treatment was due more to careful attention to the patient than to the baths themselves. The temperature in typhoid fever is characterized by excessive mobility, and can be influenced by doses of coal-tar derivatures which in other conditions would be without effect. In typhoid fever the ordinary dose is excessive and never required. He treated, in his service at the Cincinnati Hospital, one hundred and thirty-six cases of typhoid fever with acetanilid, with a mortality of 4.5 per cent. Elevation of temperature was controlled by an average dose of two grains twice daily. The cases were of average severity, as was shown by the temperature range and other symptoms.

The question, "To drain or not to drain," sprung upon the Surgical Section by Dr. Arch Dixon, of Henderson, Ky., occupied two hours time for its discussion. Limiting himself to the question of abdominal drainage, he believed that it was not only valueless in many of the cases in which it has been used, but is frequently productive of harm. He recapitulated the arguments for and against drainage and the accidents attributable thereto, and indorsed the opinion that the glass drainage-tube is an emphatic expression of the perfection to which abdominal surgery has reached. He would, however, limit its use in infected cases. The essayist discussed the causes of failure to obtain drainage, and, passing on to the use of gauze, said it would not drain pus under any circumstances, while the glass tube would do so under all circumstances. The researches of Baltimore investigators upon infection through gauze drainage was touched upon.

Dr. C. Fisch, of St. Louis, Mo., read a paper on The Antitoxic and Bactericidal Power of the Blood-serum of Horses Treated with the New Tuberculin.

After expatiating on the many failures in the use of so-called anti-tubercular sera, especially Paquin's and that of Maragilano, he gave a report of his experiments. Horses treated with the new tuberculin for five months (the maximum dose being seventy-five cubic centimeters TR and thirty cubic centimeters TO), yielded a serum which with

absolute certainty protected guinea-pigs against a fatal dose of tubercle bacilli. Infected animals could be cured with this serum if the time between infection and the beginning of treatment did not exceed ten days. Similar results were obtained on monkeys and rabbits. The bactericidal power of his serum is so high that after five hours' contact with it tubercle bacilli lose their power of multiplying. It is antitoxic to the amount of 4.5 units per cubic centimeter, if a unit is the amount necessary to counteract a fatal dose of tuberculosis toxins. It is very probable, he said, that in the future the antitoxic potency of the serum will be increased considerably, and that it will prove of great therapeutic value in human tuberculosis. Indeed, the treatment of about twenty cases of incipient tuberculosis with this weak serum had been exceedingly satisfactory and would be made the subject of a future report.

Dr. William H. Wilder contributed a practical paper on *The Causes and Treatment of Phlyctenular Keratitis*.

He described the pathology and symptoms of the disease. While it is most common in the scrofulous, its lesions were not tuberculous. The affection sometimes develops after acute infectious disease, and as the constitutional condition which predisposes to lymphatic engorgement may be acquired as well as inherited, he would urge prophylactic treatment addressed to lymphatic conditions after acute diseases and in those of the scrofulous diathesis.

Dr. B. Sherwood Dunn, of Boston, Mass., presented an essay entitled *Mothers and Daughters*. Dr. H. W. Whittaker, of Columbus, O., read a paper on *Chronically Diseased Tonsils*. Regarding *Hypertrophied Tonsils* was the title of a paper by Dr. I. F. Barnhill, of Indianapolis, Ind. Dr. J. R. Taulbee, of Mt. Sterling, Ky., read a paper on *The Treatment of Wounds by the Open Method*.

SECOND DAY.

Dr. John V. Shoemaker, of Philadelphia, read the Address on Medicine, "Progress and Problems in Medicine."

He spoke of the most noteworthy advances which had been made in the past decade and some of the problems which occupy the professional mind at the present time along the line of organo-therapy. The value of thyroid extract in the treatment of myxedema and cretinism is among the assured things of medicine, and it appears probable that, as the adrenals supply some substance to the skin or in some way con-

trol its nutrition, by the administration of adrenal extracts Addison's disease may be influenced. Not so much can be expected, however, since we know that Addison's disease is tubercular.

Of exceeding importance is the demonstration that the protoplasm of the bacterial cell contains an antitoxin as well as a toxin, and that the latter may be extracted from it, leaving the immunizing and curative principle. The new tuberculin of Koch has not been sufficiently tested to warrant a positive opinion, but its use seems a most rational therapy. Almost simultaneous with the discovery of the yellow-fever bacillus by Sanarelli came the announcement that its toxic effects could be prevented by an antitoxin and infection prevented by an immunizing serum, and it is reasonable to believe that we are now having the final visit of "yellow jack" to our shores.

One of the most difficult problems of modern medicine relates to the cause and treatment of carcinoma. We have strong reasons for believing that carcinoma is at the beginning a strictly local disease, and it is important that the neoplasm should be promptly removed. Cohnheim's theory of the etiology of carcinoma is suggestive but not proven. There is no doubt that prolonged irritation, chemical or mechanical, is a fruitful source of carcinoma. There is much to suggest an infectious process, but the studies relating to sporozoa seem to be losing rather than gaining ground. Two or three recent attempts to check the growth of cancer may be noted. Richet and Hericourt studied the question from the standpoint of serum-therapy but without definite results. Methyl violet and the erysipelas and prodigious toxins have not given such good results as to lead to general adoption in practice.

The study of malarial infection is another great problem. While the acute intermittent can be detected by the tyro, the manifestations of chronic palludism often puzzle the most expert, and the tendency at the present time, as in former days when the true cause of malaria was unknown, is to attribute to chronic malarial poisoning a vast number of affections. There are certain phases in the cycle of the malarial parasite in which quinine will not destroy it. Among the new drugs which have been introduced phenocoll hydrochloride is the best substitute for quinine.

Dr. F. W. Langley, of Cincinnati, read a paper on Locomotor Ataxia in its Modern Aspect.

Peripheral sensory neuron degeneration would be a name for the disease in conformity with latter-day information. The sclerosis is the

result of the neuron degeneration and not the cause. There is reason to believe that if the parenchymatous degeneration is recognized early the sclerosis could be prevented by treatment. He said there was reason to believe that more than one pathological condition is now included under the term locomotor ataxia. Peripheral neuron degeneration results from the action of a toxin. Speaking of the diagnosis of locomotor ataxia, he said that every case of rheumatic pain not distinctly articular should be given an examination for beginning tabes. There was no need for antisypilitic treatment. Complete rest in bed with liberal diet would often restore injured neurons and possibly lead to the production of new ones. Drugs most useful are those of nutritional value. Aluminium chloride is valuable for lightning pains. Of the many different forms of electricity he preferred the sinusoidal current. He gave a report of cases in which an early diagnosis had been made and which had been remarkably benefited by treatment, and said that by reason of a clearer conception of the pathology and more rational therapeutics locomotor ataxia had become a more hopeful disease.

Dr. Harold N. Moyer, of Chicago, read a paper on Paralysis Agitans without Tremor, and presented photographs and clinical histories of three such cases he had seen. The name, paralysis agitans, is singularly inappropriate, as there is no paralysis and in some cases no tremor, the essential clinical phenomenon being rigidity of the voluntary muscles and retardation of voluntary motion at the inception of the act.

Dr. Philip Zenner, of Cincinnati, read a paper on Tobacco Neuroses.

He spoke of the physiological effects of tobacco. Smoking is most important in causing disease of the nervous system, its effects being due to nicotine and the CO₂, of which latter the smoke contains from five to fifteen per cent. He detailed several cases, which had for years been treated for other complaints, that were cured by the withdrawal of tobacco. He believed it to be true, however, that tobacco was often only one of many things which entered into the causation of what are called tobacco neuroses, and that the withdrawal of tobacco was the only way of determining its injurious effects.

Dr. Sanger Brown, of Chicago, read a paper on Chronic Spinal Muscular Atrophy viewed in the light of the modern conception of the neuron. Dr. R. Dewey, Wauwatosa, Wis., read a paper entitled A Group of Paranoiacs with Criminal Tendencies.

Dr. W. F. Barclay, of Pittsburgh, Pa., read a paper on Milk, its Production and Uses. He has had occasion to investigate the milk supplied to the city of Pittsburgh, and found that only five per cent of it came up to the chemical standard of good milk. In only two dairies was the collection of this important article of diet carried on in a manner which would insure a wholesome product. The adulteration of milk is a problem almost beyond conception and finding out, but has not such vital importance as the conveying of infection through this medium. The statistics of the State Veterinarian of Pennsylvania show that of two thousand cattle tested with tuberculin during the past year thirty-eight per cent were tuberculous. The communicability of tuberculosis among dairy cattle, in the unhygienic condition under which most of them live, has been strikingly demonstrated. The disease is one of the results of domestication, for it never exists among range cattle. Leaving out of consideration the great danger of the disease being communicable to man, he said that humane reasons alone would demand a prompt extermination of the disease.

Dr. H. Hatch, of Quincy, Ill., read a paper on Severe Injuries from Electricity.

He said that electric burns differ from all others in that the tissue is destroyed far beyond the point of contact, and for this reason electric burns are slow to heal. Burns of this character, so slight as apparently to go only through the epidermis, are often slow to heal and may leave an ugly scar. One of three things follow contact with the electric current, immediate death, a severe burn, or no effect. The shock following electric burns is in some respects peculiar; nervous symptoms may continue for years after these burns, but he has never seen paralysis. One of the conditions commonly present in electric shock is bloody urine. The general treatment as given does not differ from that in burns due to other causes.

Dr. A. E. Sterne, of Indianapolis, read a paper on The Treatment of Cerebro-Spinal Syphilis.

He believes that in these cases the ordinary beginning dose of potassium iodide is entirely too small. He prefers sodium to potassium iodide, and has used of this 1,500 grains daily, giving it in divided doses six times instead of three times daily. Patients suffering from iodism produced by small doses he has seen relieved by stopping the drug for a day or two and then starting at once with from one hundred to three hundred drops of a saturated solution of sodium iodide.

Dr. Cunningham Wilson, of Birmingham, Ala., read an interesting report on three cases of amebic dysentery associated with the trichomonas intestinalis, and mentioned a fourth case of amebic dysentery in which the cercomonas intestinalis was also present.

Dr. F. F. Lawrence, of Columbus, O., read a paper entitled Hysterectomy.

The debatable questions and points connected with this subject seem endless. However unsettled these disputed questions are, all gynecologists are of the opinion that the operation is carried to an extreme hardly equaled by any other surgical procedure. The conditions which justify surgical procedure in other parts of the body must hold good in diseases of the womb. In cancer the operation is justifiable from the fact that all die unless there is complete removal of the uterus by hysterectomy. The cure of a small percentage is justifiable. The only question is whether the percentage of lives saved by hysterectomy, particularly vaginal, can be greater than that which follows curettage and the application of the cautery. The choice of the vaginal or abdominal route depends upon the personality of the operator. Freedom from shock and absence of an abdominal scar render the vaginal route attractive.

When we remember that cancer extends by the lymphatics, and that the lymphatics of the uterus, broad ligaments, and tubes empty into the lumbar glands, it would seem that removal is of little value where the body and fundus are involved. In cases limited to the cervix the fact that the vaginal and cervical lymphatics join the inguinal glands would seem to indicate that hysterectomy for cervical cancer would be of little use. Cancer of the cervix according to statistics returns most frequently. Hysterectomy should be performed early, and there should be complete removal of all tissues involved.

Hysterectomy is sometimes necessary where the walls of the uterus are the seat of abscess, where the origin of the suppurating process is tubercular. The removal of all uteri having pus tubes is mutilation. In pus tubes hysterectomy should be done where death will probably follow a less radical operation, where removal of the tubes and ovaries though not resulting in the immediate death of the patient will leave her an invalid, and where the septic uterus remains a menace to the patient. The necessity for the complete removal of all infected material renders the abdominal route safer.

Fibroids have been incompletely studied in reference to their destruction of life. Small fibroids do not destroy life, disappear after the menopause, are relieved symptomatically and in many cases cured by the removal of the tubes and ovaries, do not tend to malignant degeneration. Fibroids of large size destroy life, do not disappear after the menopause, tend to malignant degeneration. They destroy life by hemorrhage and by pressure upon the abdominal viscera. In small fibroids occurring early in life accompanied by hemorrhage, curettage, removal of the tubes and ovaries, and removal of the uterus should be practiced in the order named. In small fibroids occurring near the menopause, causing hemorrhage, curettage and electricity should be the treatment. In large fibroids or those developing during or after the menopause hysterectomy is the only treatment. In myoma all operations except hysterectomy are useless.

In tuberculosis of the tubes and ovaries, if it be a local condition, infection occurs through the genital tract, and the uterus will be found tuberculous; the disease is primary in the uterus, secondary in the tubes. Hysterectomy should be the operation.

Prolapse or complete procidentia does not justify hysterectomy. Ventral fixation or shortening of the round ligaments is better.

In tubercular cases the operation through the vagina is to be given some preference. In fibroids, myoma, and pus tubes supravaginal hysterectomy will necessarily produce better results.

Dr. Bayard Holmes, of Chicago, read a paper on *The Diagnosis of Surgical Diseases of the Kidneys, Bladder, and Prostate*.

Palpation of the normal kidney in the normal individual is impossible. It may be practiced in very thin persons or in enlarged or movable kidneys.

Percussion of the kidney by the ordinary method is a well-recognized but not very valuable method of diagnosis except when the kidney is enlarged and displaced.

Auscultatory percussion of the kidney is of recent development. This is done by placing the phonendoscope over the region of the kidney and tapping with the finger. In several cases he has been able to mark the outline of the kidney, and afterward to demonstrate its correctness by laparotomy.

Dr. C. C. Jacobs, of Crossburg, Md., read a paper on *The Treatment of Obstructive Lesions of the Urinary Tract anterior to the Bladder, with Special Reference to the Prostate Gland*.

He said that no curative treatment for obstructive hypertrophy of the prostate has been devised that is satisfactory to the genito-urinary surgeon. The efforts that have been made in this field may be classified as follows: (1) Atrophy of the gland by castration; (2) excision of the gland; (3) ignoring the gland and providing an artificial urethra. Experience has proved that rest can do more to cause disappearance of the hypertrophy than any scheme of the surgeon. The best method of securing rest is by suprapubic cystotomy. Dr. McGuire has left the fistula open for two or three years. After this prolonged rest the patients were able to again return to the use of the urethra. When the integrity of the urethra has been destroyed the suprapubic opening must be left open for the remainder of life, and to prevent closing it becomes necessary to insert a silver tube. Suprapubic operation is less dangerous to the patient than perineal section, and there is no danger of permanent incontinence of urine as sometimes follows perineal section.

Dr. Leon Straus, of St. Louis, read a paper on Primary Tuberculosis of the Rectum.

Primary rectal tuberculosis, he said, had not received very much attention. According to his experience it was not such an infrequent disease as some have thought. He believed it to be a strictly surgical disease, and that incision and curettement are often followed by complete cure, although in one of four cases which he has reported a second and third operation was necessary. The diagnosis is made by microscopical examination for the tubercle bacillus, and all suspicious cases should be submitted to this examination.

Dr. J. R. Pennington, of Chicago, Ill., read a paper on Diseases of the Rectum and Sigmoid Flexure as a Factor in General Disturbances. Dr. E. J. Senn, of Chicago, Ill., read a paper on The Treatment of Suppurating Fistulous Tracts.

THIRD DAY.

Dr. John B. Murphy, of Chicago, read the Address on Surgery, "The Diagnosis and Treatment of Ileus."

He defined ileus as a train of symptoms—abdominal pain, nausea and vomiting, tympanites and local tenderness—not a distinct pathological entity. It includes all the conditions which produce these symptoms. He divided ileus into (1) adynamic, (2) dynamic, (3) mechanical. The gastric crises of locomotor ataxia had often led surgeons to operate for mechanical obstruction. Paralysis of the intestinal wall is often

produced by local or general peritonitis, and therefore paralysis may be local or general. Dynamic ileus occurs as the result of excessive intestinal contraction, and is produced by lead, tyrotoxin, and sometimes by entozoa. Adynamic and dynamic ileus include about seventy per cent of all cases, and to this class belong most of the cases of intestinal obstruction that have been cured by internal and external medication. This has also led to the different opinions which exist as to the cure of mechanical ileus by other than surgical means.

It is possible to make a differential diagnosis of the different forms of ileus. The order of the onset of symptoms, their intensity and duration, is of more importance than the mere fact of their presence. In mechanical ileus nausea and vomiting are less pronounced at the onset, increasing as time passes; the pulse is rarely increased in the reflex variety—always in mechanical ileus; the symptoms and physical signs of the lesion producing the ileus are present. Palpation is negative as far as the abdomen is concerned. If adynamic ileus be due to septic causes, pain or tenderness is an early symptom; tympanites is usually marked, vomiting is never fecal; singultus is pronounced; the pulse is rapid. There is always early elevation of temperature, which never occurs in mechanical ileus. In collapse, however, it may be subnormal. The persistency of obstipation depends upon the nature and virulence of the cause in adynamic ileus. In peritonitis of the staphylococcus type we have an exudate covering the intestinal coils; finally this is exfoliated, peristalsis commences, toxic products are rapidly absorbed, leading to collapse. Rapid bowel movements follow. Such movements following prolonged constipation in adynamic ileus are much to be feared. In another variety of ileus in which we have the symptoms mentioned it is the result of uremia.

In making the diagnosis of this variety we must bear in mind that in eighty per cent of the cases of mechanical ileus albumin is present in the urine, while in cases not obstructive in character it is found in only eight per cent. Cloudy swelling and fatty degeneration of the kidneys follows complete obstruction in a large percentage of cases, which is evidence that they die from a toxic action. The pain in non-obstructive ileus is of a spasmodic character. The differential diagnosis of mechanical ileus is not so difficult as we have been led to believe. Pain, which is usually felt over the seat of obstruction, is spasmodic in character and is increased by palpation. Nausea and vomiting occur a few hours after the onset of symptoms. It is at first reflex; later for

the purpose of getting rid of the fluid poured out. Formed feces is rarely ever vomited; what is called fecal vomiting is usually curdled milk or undigested food. When formed feces is vomited it is indicative of obstruction in the large gut. Temperature elevation is never present in uncomplicated mechanical ileus, and is of great importance in making the differential diagnosis between it and the septic variety. In the external variety the presence or absence of a tumor at the openings where hernia occurs is of importance. General tympanites, if accompanied by peritonitis, is a result of obstruction low down. The presence of gas and fluid in the tumor denotes incomplete obstruction. Irregularity of the abdomen is more common in mechanical ileus. Care should be taken to note the direction in which the tumor extends from the seat of pain, as this gives an idea of the seat of obstruction. A fluid accumulation which changes with the position of the patient is within the peritoneal cavity—except in those cases of adynamic ileus where in consequence of complete paralysis of the gut it changes as if the gut were a rubber tube. Auscultation is but little practiced in the diagnosis of mechanical ileus. We recognize by it the presence or absence of the normal intestinal sounds and any increase in their volume.

In appendicitis it is possible before operation to map out the area of adhesions. In mechanical ileus there is a marked increase in the normal sounds up to the point of obstruction, at which they suddenly cease. If called upon to say in what class of cases the stentoscope is most useful, I should say in the diagnosis of acute disease within the abdominal cavity.

In spasmodic ileus the indication is, relieve the irritation which causes it. This is the class of cases in which opiates are of value. In uremic ileus we have the indication to relieve the poisoning. This is best done by injection into the gluteal region of one, two, or three quarts of a saline solution, 2-1,000, together with the other agents ordinarily used. The first principle in the treatment of mechanical ileus is to refrain from doing those things which will obscure the symptoms—not to use the hypodermic syringe. There is no medical treatment. The primary treatment should be rectal and gastric lavage, as this seems to lessen the danger of auto-intoxication. Operation for strangulation ileus should always be within forty-eight hours of the onset of symptoms. In obturation ileus—a partial obstruction at some point—it may be delayed a few hours. The choice of anesthetics is here more impor-

tant than in any other class of cases. In patients past middle life, under the Sleich method of infiltration anesthesia, we can suppress pain and perform grave operations without the slightest inconvenience or danger, and it should always be preferred in strangulated hernia. Next to this chloroform should be preferred.

When the large intestine is involved the incision should be made on the median side of the point of obstruction; otherwise in the middle line. The caput coli must then be found; if it is collapsed it is a small intestine obstruction; if it is distended it is a large intestine obstruction. The obstructed part when found should be brought well into the field. Evisceration should never be done. An artificial anus should never be made except in cancer. The mortality is very great from artificial anus, and the secondary operation is difficult. End-to-end approximation gives better results. The best cicatrix is produced by pressure-atrophy approximation. He described the pathological changes in the gut in volvulus and internal strangulated hernia, and said that these changes extended for a variable distance beyond the obstructed part—sometimes as much as two or three feet—which accounts for the failure to obtain union in many cases. Sometimes death occurs forty-eight hours after operation. The autopsy shows necrosis of the mucosa but no peritonitis. In these cases it is probable that death occurs from the absorption of toxins elaborated above the strangulated portion before operation. It is his practice before making the anastomosis to irrigate the gut for four or five feet above the seat of obstruction.

Dr. C. Travic Drenna, of Hot Springs, Ark., reported a case of anesthesia produced by mercury. The case was one of tertiary syphilis. There were numerous ulcers upon the skin and the mouth and throat. The patient was quite anemic and despondent. Inunction of $\frac{1}{8}$ grain of mercurial ointment was ordered. On the second day he complained of soreness of the throat and difficulty in swallowing. The next day he was given another inunction, which intensified the symptoms. Anesthesia had developed and was complete from the knees downward. Medication was discontinued. Improvement began after three days, and a cure was complete in three weeks. Clevinger says that such a condition can be produced by mercurial accumulations in the blood-vessels.

Dr. Eno Sander, of St. Louis, read a paper on The Carlsbad Springs of North America, classing as Carlsbad springs those whose waters

were similar in composition to the wells at Carlsbad, Bohemia. Of these there are eight in the United States. He gave the composition of these waters and a description of the environments, and the therapeutic effects to be expected, closing with the statement that we have within our borders springs identical in composition to those of Europe and the world.

Dr. A. Ravogli, of Cincinnati, O., read a paper on Tuberculin in Dermatology.

Tuberculin, he said, is a remedy the value of which is not fully appreciated. It is not useful in deep-seated tubercular lesions, but in superficial areas of the disease by virtue of its phagocytic action it disperses them. Tuberculin is of very great value in the diagnosis of tubercular lesions of the skin, as a reaction almost invariably occurs in the affected part. He reported in full two cases of lupus vulgaris cured by the old tuberculin, and one case of lupus erythematosus of three years' standing cured by the same means. The beginning dose was two milligrams, which was afterward increased to five milligrams. The effect upon the tubercular areas was marked after three injections. The remedy must be used for a long time in order to prevent relapses. He reported a case of ichthyosis cured by the injection of TR.

Dr. A. P. Buchanan, of Ft. Wayne, Ind., read a paper on The Therapeutic Indications for Arsenauo.

Dr. C. McGahan, of Aiken, S. C., read a paper on The Sanatorium Treatment of Phthisis.

He discussed the question under the heads of Sanatorium Treatment, General Management, Treatment of the Phthisis. He was impressed with the idea that at health resorts we do not have sufficient control of patients, and consider it wise that they should be in a sanatorium and seen every day by a physician. Speaking of his sanatorium at Asheville, which is endowed by wealthy Eastern people, and is for the free treatment of young men with incipient tuberculosis, he said that it is built on the cottage plan, each cottage holding four persons. He is using at present the modified tuberculin of Koch. Paquin's serum was used in one case, but the result was so disastrous that he has not tried it again. With regard to creosote, he said that in large doses it sooner or later upsets the stomach, the length of time required being measured by the resistance of the patient, and that when a phthical patient's appetite had been destroyed a great injury had been done him. He thought far more cases were injured than benefited by large

doses of creosote. He reported eight cases of incipient tuberculosis which have been so far relieved that during the past summer they were enabled to go to work; he expects these people to return again this winter, and hopes to make the improvement permanent.

Dr. Kennon Dunham, of Cincinnati, read a paper entitled *The Hypodermic Syringe and its Uses in Malaria*.

He said the purpose of his paper was to call attention to the value of the hypodermic use of quinine in malaria. This enables us to time accurately the administration of quinine and to obtain its effect upon the parasite at the time of segmentation. The form which he has used is the hydrochlorosulphate. It is soluble in equal parts of water, is as strong as the bisulphate and is the least painful of the salts of quinine. In a series of twenty cases treated at Cincinnati by this agent he found by giving five grains hypodermically four hours before the expected paroxysm, and the same quantity at the time of the chill, that further paroxysms were prevented and the disease was cured in a few days.

Dr. Homer M. Thomas, of Chicago, made a report on some experimental work on the penetrability of vaporized medications in the air-passages.

He considered the different pathological conditions in which medicines are used in the form of vapors, and described the difficulties which lie in the way of direct application of drugs to the diseased area in the lung. He could not see any reason why vaporized liquids could not enter the air cell, and related experiments made in support of this view.

The result of these experiments proved to his mind that liquids vaporized under pressure were capable of entering the air cells of the healthy human lung.

Dr. C. A. Johnson, of Chicago, Ill., read a report of thirty cases of tuberculosis, selected at random out of two hundred which had been treated with inhalations of liquids vaporized by the apparatus of Dr. Thomas. The effect in all these cases was a marked diminution in the cough and expectoration and a lower temperature range. He had not seen cures by it, but under no cough mixture had he ever obtained such beneficial effect upon the cough and expectoration.

Dr. Wm. E. Wirt, of Cleveland, O., read a paper on *The Treatment of Chronic Joint Affections by Dry Heat*.

The author claimed originality in this method, which was begun by him about three years ago. His first report being a paper read before

the Mississippi Valley Medical Association two years ago. His apparatus is a copper cylinder with four openings at the top, and at either end a hood with puckering-strings to inclose the limb. He envelops the limb in absorbent cotton, as he found the heat caused profuse perspiration, and this, unless it be absorbed by cotton, becomes converted into steam and scalds the patient. The temperature ordinarily used is from 250° to 300° F.; in one case the thermometer registered 450° F. The pain and stiffness in joints is greatly relieved.

Dr. Max Thorner, of Cincinnati, read a paper on Epistaxis in its Most Serious Forms, with report of a case necessitating ligation of the common carotid artery.

He said that under the term epistaxis is included bleeding coming from the nose itself and that only passing through the nose. Referring to hemorrhage from the nose itself, he said that this to a dangerous extent might occur from both local and general causes, as in malaria, typhoid fever, and other acute diseases, leucocythemia, etc. The bleeding might be of diagnostic importance and we might in this way learn of a sclerosis of the kidney or liver and beginning arterio-sclerosis. The most important cases are those of hemorrhage through the nose due to injury of the base of the cranium. In his own case, that of a man struck on the head, the hemorrhage recurred at intervals for eighteen days, until finally the man was almost exsanguinated. All local and constitutional treatment having failed, the common carotid artery was tied. The patient recovered.

Dr. A. Goldspohn, of Chicago, read a paper entitled Why are Retroversions and Retroflexoversions of the Uterus, *per se*, pathological during the menstrual life of the human female?

Dr. J. B. Learned, of Northampton, Mass., read a paper on The Treatment of Insomnia, with a New Method of inducing Sleep.

Dr. I. N. Love, of St. Louis, Mo., read a paper entitled Thyroid Glands, Clinically.

He spoke of the use of thyroid extract in the treatment of obesity. There had come under his observation within a year one boy, eight years of age, weighing one hundred and forty pounds; another, seven years of age, weighing little less; another, ten years of age, weighing one hundred and eighty pounds. Exhibition of thyroid extract in five-grain doses three times daily, and increasing to four times, guarding the administration by strychnine. He prescribed in addition every form of exercise and restricted diet. The boy, eight years of age, now weighs

one hundred and thirty pounds, and is in every way benefited. The others were similarly benefited. The thyroid gland seems to be an agent of the greatest value in obesity generally, and especially when obesity occurs early in life.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The Winter Session; New Government Laboratory; A Massage Machine; The Vegetarian Congress; Canned Foods; Cremation; Medical Aid Associations; Increase of Lunacy: First Aid at Sea.

The majority of the medical schools attached to the London hospitals will begin their winter session on the first of October, but a few will not make a beginning until Monday, 4th. The introductory address at the Middlesex Hospital will be given by Lord Strathcona from Montreal University, at St. Mary's by Dr. Gow, at Charing Cross by Dr. William Carter, and at University College by Dr. Raymond Johnson.

It has been decided to move the Government Laboratory, at an early date, from Somerset House to new premises near Clare Market. For a long time the staff have found great difficulty in the discharge of their onerous duties. The new arrangements have been made under the personal supervision of Professor Thorpe, and he has seen that every modern improvement has been introduced into the new premises.

The trustees of the Sir Morell Mackenzie Memorial Fund have handed over to the Throat Hospital, Golden Square, one thousand and twenty-three pounds toward the building of the memorial wing of the extension now being carried out.

A massage machine has been exhibited in London, which the inventor considers will obviate employment of a professional masseur. The apparatus consists of a series of twelve pairs of polished hardwood balls arranged upon a jointed chain, with a handle at each end. It is thirty-two inches long (the balls extending a length of twenty-two inches), and can be applied to any part of the body by the person using it. The inventor shows how, in a case of lumbago or stiffness of the shoulder muscles, the apparatus can be used by the sufferer without any uncomfortable straining, and producing kneading of the muscles equal to digital massage.

During the month the Vegetarian Congress has held its meetings in the Metropolis. The "Provost" of the "order" presided and explained that the body claimed members in nineteen countries, and existed for the purpose of hastening "the coming of the Golden Age, when Love, Peace, and

Good-will shall reign in every human heart, and by endeavoring to promote universal benevolence and philanthropy." The "Provost" alluded to the symptoms of a great wave of human feeling setting in throughout the world in recognition of the rights and claims of animals. He looked forward to an end of the era of butchery ere many decades were passed, and in a reformed dietary saw the solution of the problems of drink and agricultural depression. The hospitals will be occupied by cases of senile decay.

Dr. T. Brown at the Sanitary Congress at Leeds showed himself to be a strong advocate of legislation in the matter of canned foods. In regard to tinned fruits Dr. Brown said he had not heard of any case which had ended fatally. He had, however, made numerous analyses, showing that in cans in which lead was used in tinning or soldering, the former metal was found in the fruits and syrup. How long foods hermetically sealed would keep was not definitely known. Having had canned foods, including meats, soups, rabbits, giblets, and oysters from twenty to thirty years, he had found that the tins, though rusty outside, were perfectly good inside. The meats were sound, though not as fresh and tempting to the eye as recently prepared samples. In canned fruits, however, the effect of age was that the acids of the fruits dissolved by chemical and galvanic action the plating and solder with disastrous consequences. To safeguard the public health, Dr. Brown recommended the Government to forbid tinned foods in which the tin used for plating contained more than one per cent of lead or more than ten per cent in solder. The same law in fact which had been in force in Germany since 1889.

Sir Henry Thompson, the president of the Cremation Society, is, it may be remembered, also the founder. Cremation has been for many years his pet project, and he has been warmly supported by the Dukes of Bedford and Westminster, the former of whom erected a crematorium in his own private grounds. Cremation, according to the latest returns is advancing in this country, although the progress is not rapid. During the time the crematorium has been open in Liverpool there have been but three incinerations.

The councils of the Royal College of Physicians and Royal College of Surgeons having declined to take any disciplinary notice of those medical men who, being members of their colleges, are connected with medical aid societies, each medical society in the country is being asked to sign a memorial for presentation to the councils, which declares that persons are admitted to membership of these medical aid societies who do not need assistance, that women and children are enrolled at inadequate rates, and that the organizations are simply commercial speculations run by laymen. These declarations are understood to be the preface to the request that the councils will declare that the holding of the appointment is not compatible with the conditions under which their diploma is granted.

The fifty-first report of the Commissioners in Lunacy has just been issued. It commences with an expression of regret that the very large

increase of 2,919 in the number of lunatics in England and Wales has to be recorded for January 1, 1897, in comparison with the number a year earlier, the total in 1896 being 99,365, as against 96,446 at the beginning of 1896. It appears that pauper lunatics show a decided increase from year to year, while private patients as a class show a continuous decrease from 2.82 per 10,000 of the whole population in 1891 to 2.68 in the present year. The private patients increased by 53 during the past year, the pauper lunatics by 2,857.

With a view of giving merchant seamen a knowledge of first aid at the "missions to seamen" near the London Docks, classes have been conducted by Dr. Bedford, house surgeon to the Poplar Hospital. In two years there have been six thousand attendances of seamen, representing about one thousand different men. Many of the men have had to go to sea before they could offer themselves for examination, but two hundred and thirty of them have gained the certificate of the St. John Ambulance Association. At other mercantile ports six hundred and thirty-two certificates have been gained during the same period. A Trinity House order has been issued, desiring that all officers and men in the service should qualify themselves when opportunity offers in first aid.

During October Dr. E. Symes Thompson will deliver a course of lectures at Gresham College on "Preventive Medicine in the Victorian Era." The course will be free to the public.

LONDON, September, 1897.

Abstracts and Selections.

THE CHOICE OF A MERCURIAL TREATMENT.—Fournier (*Sem. Méd.*, June 30, 1897,) gives rules for administering mercury in different cases of syphilis. Leaving aside fumigation, baths, mercurial plasters, etc., as antiquated, there remain three possible methods: (1) Ingestion; (2) inunction; (3) hypodermic injections. The advantages of ingestion are: (a) Simplicity; (b) it being usually well tolerated by the mouth and intestinal tract; (c) its proved activity. The disadvantages are: (a) It may upset the digestion; (b) it is only tolerated in moderate doses, otherwise diarrhea and stomatitis appear; (c) it is therefore only suitable where a moderately active and not very rapid method is indicated. The advantages of inunction are: (a) it is intensely active; (b) it does not, unless exceptionally, upset the digestion; (c) it leaves one free to give any other medicine by the stomach. The disadvantages are: (a) The trouble and time required are such that few patients will carry it out properly; (b) the course can not be kept secret; (c) its curative effects are very unequal, probably depending on the way it is performed; (d) it is more likely than any other method to

produce stomatitis of a very severe character. As regards hypodermic injections, there are two methods—namely, frequent or daily injections and occasional injections. The advantages of the former are: (a) it is an active method, whose activity can be regulated from day to day; (b) it does not upset digestion; (c) the stomach is free from other medicines. Its disadvantages are: (a) The possibility of local complications and the severe pain; (b) the impossibility of carrying it out properly outside a hospital. Occasional injections are remarkably active, and sometimes work extraordinary cures not seen in any other treatment—such as the disappearance in a few days of large tuberculous syphilides, tertiary glossitis, gummatous laryngitis, etc. Of the disadvantages, some, such as stomatitis, are common to other methods; some, such as the almost inevitable injection nodules, are not of much importance; and some, such as phlegmonous inflammation, can be avoided by antiseptis. The great and unavoidable disadvantage is the pain. The author found that even a small dose, such as $\frac{1}{16}$ of a grain of calomel, is often extremely painful. Of 400 calomel injections, the pain was bearable in two fifths, intense in three fifths, and in one fifth of the latter intolerable. Many have therefore given up the treatment altogether. This is wrong, as it is very valuable in exceptional cases where a rapid effect is important, or which do not yield to other treatment. Such cases are iritis and other ocular affections, ulcerated tuberculous syphilides, spreading gummatous ulcerations, phagedenic chancres, gummatous laryngitis, etc. Exfoliative glossitis also often yields to no other treatment. From the above summary certain indications are evident. (1) As regards the patient himself; if robust, ingestion will probably be most suitable, but if dyspeptic or cachectic this must be avoided; if his dentition is bad the best treatment is the perchloride by the mouth, inunction and occasional injections of large doses being then altogether contra-indicated. Injections are not to be used unless really necessary in workmen and others who live by the use of their limbs. (2) As regards the kind of syphilis: it may be roughly said that ordinary cases should be treated by ingestion, more severe by inunction, and the worst by injections. (3) As regards the object of the treatment: if it is for any particular symptom the course most suited for it must be chosen; if it is to cure the disease, the first consideration is that the course must be a long one. Hence, owing to the disadvantages of inunctions and injections, ingestion is by far the best for this purpose, the course being interrupted now and then, but lasting for years.—*British Medical Journal*.

CARDING THE SCIATIC NERVE.—The operation of "carding" or "harrowing" the sciatic nerve for very obstinate sciatica was first performed about a year ago by Dr. Delagénère, of Mans, in a case in which he presumed that the cause of the pain was a varicose condition of the veins surrounding the nerve. The intention was to excise these veins after the method recommended by Quénu, but when the nerve was exposed instead

of the varix he expected he found only a number of small serpiginous vessels running along it, causing the surface to present a furrowed appearance. It was obviously impossible to ligature and resect them, so he contented himself with teasing or carding the fibers with a blunt forceps throughout the whole exposed portion of the nerve in the hope of destroying the vessels existing in its deeper parts and of thus being able to put an end to the stasis in the venous twigs. The result was that the patient was cured. This encouraged another French surgeon, Dr. Gérard-Marchand, to attempt a similar process which he denominates *hersage* or "harrowing" in sciatica where there was no reason to suppose that a varicose condition existed. The first case was that of a woman, aged thirty-seven years, who was unable to sleep or to stand upright, characteristic scoliosis being present. There were no signs of varicose veins or of hysteria. The second was that of a man, aged forty-five years, with a very old-standing sciatica, no treatment having been of any avail. Here also there were no varicose veins. The operation, which was similar in the two cases, was performed under chloroform, and consisted in exposing the nerve and teasing apart its fibers for a distance of two centimeters by means of a grooved director. The appearances were normal, there being no discoloration and no dilatation of the vessels. After the *hersage* the nerve was flattened out to twice its ordinary breadth. A drainage-tube was inserted and the wound sutured and dressed with iodoform and absorbent cotton wool. For several days the patients complained of pain in the nerve and of numbness in the limb. The pain, however, gradually passed off and sensation returned, complete recovery resulting in both cases. From experiments on animals Dr. Gérard-Marchand has been led to conclude that *hersage* of the sciatic nerve produces temporary loss of sensation in the nerve, while the motor power is not interfered with. He suggests that probably this operation may be found of value in the case of other neuralgias which have resisted all ordinary treatment.—*Lancet*.

THE ACTION OF TUBERCULIN.—Kasperek (*Wien. klin. Woch.*, 1897, No. 26,) records the results of an important series of investigations into the action of tuberculin on healthy and tuberculous animals. His first object was to determine in some measure the relation between the reactions produced by different varieties of tuberculin. Preparations were made from human and avian tuberculosis by concentrating six to eight weeks' old cultures to .125 or .1 their bulk. It was found that eight times the quantity of bird tuberculin was required to produce the same effect in the experimental animals (guinea-pigs) as a given dose of the human product; a good deal depended on the body weight of the animal, and guinea-pigs of as nearly as possible the same weight were selected in consequence. These precautions having been taken, the author was able to demonstrate that the tuberculin reaction was constant in diseased as distinguished from non-tuberculous animals. He next investigated the length of time which elapsed

after infection with tubercle bacilli before the reaction was obtainable. When infection was accomplished by the injection of bacilli into the abdominal muscles the reaction appeared in thirty-six to forty-eight hours, at a time when no macroscopic lesion could be detected though the bacilli were multiplying at the seat of injection. The fact that no reaction takes place at first shows that it is an actual tissue change in the animal and not the mere presence of bacilli which renders it so susceptible to the influence of tuberculin. This is confirmed by the fact that the substitution of an equal amount of living tubercle bacilli for the tuberculin gives no reaction whatsoever. When the tuberculous infection was effected by means of inhalation no reaction was obtained till after six daily exposures of an hour each; whenever it was obtained the animal eventually succumbed to tuberculosis. This shows the extraordinary diagnostic value of tuberculin. The last series of experiments consisted in the injection of tuberculin into animals which had been weakened previously by diphtheria toxin. Fever resulted in these cases but was not of the same type as that constituting the tubercle reaction, than which it lasted at least five or six hours longer. Kasperek's conclusions are as follows: (1) The tuberculin reaction occurs very early (thirty-six to thirty-eight hours) in animals infected with tubercle, as soon, in fact, as the slightest amount of tissue change has taken place; (2) the activity of a tuberculin preparation varies with the source from which it is obtained; (3) the fever evoked by tuberculin in animals weakened, for example, by diphtheria toxin is distinguishable from the typical reaction by its greater duration.—*British Medical Journal*.

PEMPHIGUS OF THE MOUTH.—The eruption of pemphigus sometimes occurs in the mouth and on other mucous membranes. That the disease in the mouth may precede that of the skin in the ordinary form of pemphigus—the chronic—is not generally known, though this is what invariably occurs in a rare form, pemphigus vegetans, and that the disease may remain localized to the mouth and adjacent cavities for a long time, and in some cases entirely, does not appear to be at all recognized in this country. In the *New York Medical Journal* of July 3d Dr. Lewis H. Miller describes a case in which the mouth was affected for twenty months without the skin being involved. The patient was a man, aged seventy-two years, who complained of soreness in his mouth and inability to take solid food. On the roof of the mouth and on the epiglottis were patches of false membrane of considerable thickness, which when removed left a raw, bleeding surface. Some decayed teeth were extracted and antiseptics used, but blebs formed on the roof of the mouth, the soft palate, the cheeks, under the tongue, and on the posterior wall of the pharynx. Bacteriological examination of the membranes gave negative results. There was neither fetor nor salivation. Whenever the patient attempted to masticate solid food a fresh crop of blebs appeared. We consider this fact of great interest and importance. It is perfectly analogous to what may occur in pemphigus of the skin; for

local injuries, and even friction or pinching, will in some cases determine the formation of a bulla at the spot. No stronger confirmation of the diagnosis of pemphigus of the mouth when the eruption on the skin is absent could be given than this production of bullæ by such trivial exciting causes. Nothing of the kind, as far as we know, occurs in any other disease. Dr. Miller quotes a number of cases in which the disease existed for long periods, in one as much as eleven years, in the mouth before the skin was affected. The rare disease, pemphigus of the conjunctiva, may be very instructively compared with pemphigus of the mouth, because in the former disease also a skin eruption may be either absent or present. The treatment is similar to that of pemphigus of the skin, though it does not appear to be very successful. In the case given arsenic seemed to produce some improvement. Opium might be tried. Mr. Hutchinson has shown it to be distinctly curative in some cases of pemphigus in which the mouth is primarily involved.—*Lancet*.

EFFECTS OF AGE UPON THE EYES.—The cornea takes the form of a border ring of whitish tissue, the cause being the fatty degeneration of the surrounding parts of the cornea. The strength of sight decreases with age, until it becomes difficult to distinguish small objects placed close to the eyes. This, however, may be in a great measure remedied by the use of suitable spectacles. Cataract, although frequently accompanying old age, is by no means a necessary consequence of it. In youth the lens is perfectly transparent and colorless. After the thirtieth year it begins to acquire a pale yellow tint, and as age advances this becomes more pronounced, until it is finally transformed into a deep amber. These changes in the normal transparency coincide with a failing in nutrition, but their progress is not accompanied by loss of sight. When a total loss of nutrition ensues, however, the lens becomes quite opaque, and the operation for removal, which has been brought to such perfection in late years, becomes necessary.—*The Optical Journal*.

OCULAR HEMORRHAGES IN YOUNG SUBJECTS AND IN ADULTS.—Abadie (*Soc. d'Ophtal. de Paris*, April 6, 1897,) lays stress on two symptoms which he thinks are of importance as bearing on the causation of intraocular hemorrhages in young subjects: (1) The epistaxis which often precedes or accompanies them; (2) a noticeable diminution in the number of the red corpuscles in the blood. These seem to indicate that the hemorrhagic process depends on an alteration in the blood. The results of treatment directed to improving its quality have been found by Abadie to be most satisfactory. He strongly recommends a glass of sulphuric lemonade, extract of cinchona 1 gram, and perchloride of iron 10 to 20 drops, to be taken daily. To favor absorption of the effusion he applies the artificial leech to the temple. Hemorrhages associated with choroido-retinitis are not to be confused with the above, and require a mercurial treatment.—*British Medical Journal*.

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"*NEC TENUI PENNĀ.*"

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THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The twenty-third annual meeting of the Mississippi Valley Medical Association took place as per announcement on the 5th, 6th, 7th, and 8th instant. The attendance, though prejudiced by groundless reports of the presence of yellow fever at this point, and rumors that the States of Indiana, Missouri, and Ohio had quarantined Louisville on that account, was up to expectation.

Among those present were Shoemaker, of Philadelphia; Barclay, of Pittsburgh; Wishard, of Indianapolis; Love, of Saint Louis; Murphy, Senn, jr., and Moyer, of Chicago; Drapy, of Saint Paul; Morris, of New York; Reamy, Ricketts, and Zenner, of Cincinnati; Dr. Walker, of Detroit and many other lights of greater or lesser magnitude, whose effulgence gave beauty, form, and depth to the constellation.

The proceedings, of which we publish in this issue a running synopsis, were rich and of scientific solidity. To one who has kept an eye upon the proceedings of medical societies during the quarter of the century last passed, it is striking to note with what accent they mark the growth and development of medicine. Surely there is nothing but material for gratification and pride in the record, and there can be no doubt that in the no distant future medicine will stand, as does surgery now, upon a firm scientific basis.

The address of welcome on behalf of the local profession by Dr. William Bailey discusses this living question in the author's usual happy and forcible manner. The address in full text appears elsewhere in this issue.

The address of the president, Dr. Thomas Hunt Stucky, was historical in character. It was eloquently delivered and enthusiastically received. The synopsis of our reporter is unfortunately too brief and hurried to do it any thing like justice.

The address in surgery by Dr. John B. Murphy, of Chicago, was a notable feature of the meeting. It was in every sense worthy of its eminent author.

The address in medicine by Dr. John V. Shoemaker, of Philadelphia, was perhaps the most interesting number of the programme, since it dealt chiefly with topics yet moot in the medical mind. It was a finished and scholarly essay, and its delivery through the rich, sonorous voice of its gifted author held the great audience in rapt attention from beginning to close.

The author's discussion of the question of malaria was particularly happy, and the following humorous turn brought down the house:

"Eleven years ago, in an English city and at a meeting of English physicians, I listened with shame and indignation to an American belittling his own country. Various alleged shortcomings were exposed, and the evil influence of malaria upon intellectual ability was depicted. A map, shaded to represent the prevalence and fatality of malaria, was exhibited, and the astounding statement was made that malaria intoxication was incompatible with scientific acquirements. I looked upon the map, and behold! the greater part of the United States was under a portentous shadow. To the North and East and in the Northwest the gloom was lightened in a comparatively small area, but the great Mississippi valley was shaded in darkest hue. Almost the whole South, in fact, was included in the same condemnation, for the dark shade ran down along the Atlantic seaboard. It is true, acknowledged the speaker, that within the malarial districts, McDowell, Sims, Gross, and Campbell lived and labored, but these men, only four in number, were exceptions, and exceptions proved the rule."

Controverting this statement, Dr. Shoemaker mentioned, among the men who were reared in the malarial belt and who became conspicuous in the higher departments of human activity, Henry Clay, Andrew Jackson, Thomas H. Benton, John C. Calhoun, Abraham Lincoln, Jefferson Davis, James K. Polk, Garfield, Hayes, and McKinley, General William H. Harrison, Daniel Drake, John T. Hodgen, Robert Battey, Crawford K. Long, and Samuel M. Bemiss.

The officers placed in charge of next session are :

Dr. John Young Brown, of St. Louis, President.

Dr. A. P. Buchman, of Ft. Wayne, Ind., First Vice-President.

Dr. A. J. Ochsner, of Chicago, Second Vice-President.

Dr. Henry E. Tuley, of Louisville, Secretary.

The election vote was unanimous, and of course everybody is satisfied.

The next meeting will be held on the second Tuesday in November, 1898, at Nashville.

Altogether the twenty-third session was a success, and if the visiting physicians and surgeons take home with them an impression of our local guild as favorable by one tenth as that which they leave with us, we may consider ourselves flattered, honored, and exalted.

Notes and Queries.

WHAT ARE NEUROSES?—Ordinarily neuroses are results of functional disturbances; occasionally, of organic inefficiencies; sometimes they are merely constitutional idiosyncrasies.

This would make them oftener than otherwise only symptoms, because the nerves are naturally the "tell-tales" to the sensorium of happenings within and without the economy—agreeable or disagreeable.

When we bestow upon man something more than a superficial study, we will perceive that while his genus is almost innumerable, yet there are no two alike in operative technique of natural gifts any oftener than there are two like conformations of the face.

Again, we will note by close study that, while he is cognizant of his high position in the scale of life, he is sometimes ignorant of his just one. Having every thing under him as the chief of the animal creation is the very best presumptive evidence that he himself must be under something. When he loses sight of this dependent position, he gets outside of his necessary natural aseptic status for healthful technique of his materiality, for it requires him to be constantly on the *qui vive* for harmonic touch with his surroundings.

If this position is not observed and sustained, his first intimation comes through the nerves that something is wrong, and if this wrong is not speedily righted, it soon becomes a neurosis on account of chronic anxiety of the nerves to preserve equilibrium.

But here is a case with neither marked organic complaint, nor is there notable functional disturbances, but simply hypersensitiveness of the electric cords (nerves) to such a degree that we call it neurosis.

Well, it is a neurosis; and such is quite fashionable these days because of loss of the harmonic touch mentioned—the result of losing sight of a dependent position through great wealth and luxurious living.

And here is a case of no wealth, but the opposite in this regard, and of usual excitability of the nerves. In this case there is much intellectuality and refinement with plenty of energy, and we trace it back for several generations as an entail from progenitors whose minds were developed at the expense of the body—and we call it idiosyncrasy.

Still another case comes up for treatment: A gentleman who disregarded, in the beginning of his race for money, all nerve warnings, continuing to do so until he is forced to seek advice, because he finds himself with no nerves left now to tell the sensorium when or how to sleep; the consequence is, he knows no rest. He has strained his nerves until they have no elasticity.

He has traded off his natural aseptic condition for the antiseptic money, and been cheated into the idea of material independence through it—finding himself “sucked” through a very temporarily satisfactory tube; having perverted his natural operative technique in acquiring his wealth, he is now willing to swap it all back for health.

The most interesting cases, and those requiring some psychic penetration, are the so-called hysterias. In some of these cases, the nerves tell us secrets it would never do to divulge. They tell us that “it is no use with your blisters, your bitters or your sweets; there is want of cerebral development which man can not cure;” and they hint so strongly organic inefficiency, that we conclude, while we may mend, we certainly can not make anew.

There are some superlative erethisms which it is not easy to look back of while taking pathological notes. In eclamptic attacks do we not sometimes put too much stress upon the outcry of the nerves? To be sure, we know that their “mouths must be shut,” still their “howl” is somewhat calculated to lead us too far off the track. To “shut them up” too close, we must not forget, is to lose our “reporters.” Nevertheless, while we console them with chloral and chloroform, we will not forget that there is something “to pay” behind them, and in plethoric cases we can sometimes astound these “wild nerves” with relief through venesection—repeated when necessary.

After all, we must admit that there is something about natural mechanism that art can not overreach, and with all of our antiseptics there is nothing like the natural plasma when we can preserve it in and about the vagina and the womb after delivery.

When forced to enter the vagina and womb to clear and clean, are there not attributes about the human hand unsurpassed by any artful contrivance?

The category of neuroses would take in almost every complaint by reason of the "prattling" nerves, were we not to look behind them for the causes of their "growlings;" and when the question, "What are neuroses?" comes up, we feel like answering: The results of every thing that goes wrong, because we have lost our art of preserving equanimity through abnormal desire for speed.—*William Stoakley, in the Virginia Medical Semi-Monthly.*

A CONTRIBUTION TO THE STUDY OF BLEEDING STIGMATA.—Dr. J. N. Hyde, of Chicago (American Dermatological Association), reported the case of an adult male subject who suffered from hemorrhages from the surface of the skin apparently spontaneous in origin. Some of these bleedings had lasted for six months at a time. Eventually there was a shortage of fifty-five per cent of hemoglobin and nearly sixty-five per cent of erythrocytes. The author reviewed the literature collected under the titles, bleeding or bloody stigmata, bloody sweat, hematidrosis, Hautblutungen, hysterical stigmata, and ecstasy, concluding as follows: "It is clear that at times spontaneous hemorrhage occurs from one or many points of the skin simultaneously or successively, either as a result of morbid changes in the circulating fluid itself, or as a consequence of disease of other organs, in particular the nervous centers, the spleen, the liver, and the kidneys. One may look with tolerable confidence in most of these cases, first, for an oozing of blood from many points at one time rather than from a single at one time; second, for an unquestioned evidence of a morbid state elsewhere than in the skin. Suspicion attaches to a second group of cases by reason of the fact that the effusion of blood from the surface of the integument seems to have been shared with spontaneous gangrene in the devices of the impostor. In analyzing the phenomena exhibited in this class of subjects the possibility is to be set aside, first, of the staining of the physiological secretions by foreign matters or by micro-organisms existing upon the surface; second, of the substitution for human blood of that of one of the lower animals. When human blood is actually effused from the skin of a subject who has been instrumental in producing the result, not only are all the sites of the hemorrhage within easy accessibility of the hands of the patient, but there are mental and nervous changes which require recognition. The mental states of this class of subjects often defy analysis; among the nervous symptoms may be named disorders of the special senses, particularly of sight, hearing, olfaction, and gustation, and the occurrence of anesthesia and of hyperesthesia."—*The Charlotte Medical Journal.*

THE HEART IN NERVOUS DISEASES.—Availing themselves of the opportunities afforded in the outpatient department of La Pitié Hospital, Mdle. Pokrychkine and M. Capitan have conjointly carried out an extended series of investigations with a view to determining what alterations of

shape and volume occur after muscular exertion in the hearts of persons who are suffering from nervous affections. While prosecuting their researches, of which a *résumé* has been communicated to the Société de Biologie, the observers made use of a modified form of Bianchi's phonendoscope; and they also executed careful tracings showing the contour of the cardiac region before and after exercise. The results arrived at by Mdle. Pokrychkiné and M. Capitan may be briefly stated as follows: (1) In moral subjects moderate exercise does not cause any perceptible changes in the heart with regard to shape, volume, or position. (2) In subjects whose nervous systems have undergone deterioration in consequence of hysteria, neurasthenia, or any reflex trouble having its point of departure in a particular part of the organism, the heart grows hyperexcitable, and changes in shape or position the moment it is called upon to do a little extra work. This alteration may present itself in three typical ways: (a) The whole cardiac area may be uniformly enlarged, or the increase may be partial and irregular. (b) The heart may become retracted and diminished in volume. (c) Finally, the organ may be dislocated laterally, with or without changes of shape and volume, the displacement being directed toward the mesial line or more frequently toward the axilla.—*Lancet*.

CREOSOTE IN GASTRIC AFFECTIONS.—According to Dr. Theodore Zanger, of Zurich, who has contributed a paper to the *Correspondenzblatt für Schweizerische Aerzte*, the present tendency to think that the larger the dose of creosote the better in phthisical cases is by no means justified by experience, for the best results are often obtained with very small doses indeed. He believes that their beneficial effect is due to their action on the stomach, causing it to do its work better and so to improve the nourishment of the system. He finds that in many cases of purely gastric affections, with or without diarrhea or other intestinal symptoms, minute doses of creosote will often succeed when other remedies have failed. In the gastro-enteritis of children and in the vomiting of pregnancy he has been greatly struck with its effects. The doses he gives vary from one eleventh of a grain in children to one third of a grain in adults. He prescribes it with enough spirit to dissolve it in a spoonful of water, with or without mucilage. Black coffee or mint tea may be employed, if necessary, to disguise the taste. If infantile diarrhea exists without vomiting he has often found creosote valuable. In the milder forms of the vomiting of pregnancy small doses of creosote have always produced an improvement, and he thinks that even in severe cases a trial of the same treatment should be made.—*Ibid*.

GONORRHEA A CAUSE OF DETACHMENT OF PLACENTA.—Maslovsky (*Ann. de Gynéc. et d'Obstét.*, March, 1897,) reports that a primipara, aged twenty-two years, was seized with flooding during the ninth month of pregnancy; severe hypogastric pains were present, and large old clots were ultimately expelled. There was an abundant thick vaginal discharge. The

fetal heart sounds could be heard; the presentation was right occipito-posterior. Owing to the presence of very old clots the normal condition of the cervix and other symptoms, Maslovsky diagnosed detachment and not abnormal insertion of the placenta. Delivery was effected; three days later the child had conjunctivitis. Gonococci were found in the uterine mucus and also in the substance of the placenta, where there was evidence of an active inflammatory process affecting the structures impinging on the maternal tissues. Maslovsky terms this form of inflammation "endometritis decidualis gonorrhœica." There can, at least, be little doubt that changes due to gonorrhea often prove disastrous to the course of utero-gestation.—*British Medical Journal*.

HEREDITARY AND CONTINUOUS SHEDDING OF THE FINGER-NAILS.—In the June number of the *Journal of Cutaneous and Genito-urinary Diseases* Dr. Douglas W. Montgomery describes the following very curious case. A man, a native of Les Basses Pyrénées, in excellent health, had been troubled ever since birth with constant shedding of the finger-nails. His mother and two of her brothers were similarly affected. One or two of the patient's nails were always falling. The process commenced by the color growing dull yellowish-white directly over the lunula or on one side of it. The nail then became lifted from its bed from behind forward until it fell off. The shedding occupied about three months. The new nails grew in from three to eight months and were perfectly normal. There was no pain or inconvenience. The hair grew vigorously and showed nothing abnormal. The teeth were excellent. There was no disease present which is associated with shedding of nails.

HYSTERIA IN THE MALE.—A. Vogt (*Norsk Mag. f. Laegevidensk.*, No. 1, 1897,) reports the case of a working man, aged fort-two, suddenly attacked by paralysis of the left side of the body, which later extended to the whole of that side. There was no sign of syphilis. The condition lasted for four months without much change. There was polyuria. There was anesthesia of the left side and paresis of both upper and lower limbs. The left testicle was hyperesthetic and there were hyperesthetic spots on the left side of the back. There was diminution of hearing and sight on the left side; on the right there was nothing abnormal. Purely suggestive treatment without any drugs effected a complete cure.—*British Medical Journal*.

TO HURRY MORTALS HOME.—The Health Commissioner of St. Louis has ordered an inspection of Chinese laundries. He fears that some may mouth-spray their work with tubercle bacilli, which being ironed into the clothing may cause contagion. Once these experts were in high esteem for washing infected clothes rejected by their timorous rivals.—*The Journal of the American Medical Association*.

Special Notices.

RECENT TREATMENT OF NEURASTHENIA.—Neurasthenic patients are so frequently harassed by restless or sleepless nights that the relief of insomnia becomes one of the chief objects of treatment. Some prejudice exists among physicians against the use of hypnotics in these cases, and this is mainly attributable to the risk of inducing habituation. This objection does not apply, however, to the employment of trional, which has lately become the popular hypnotic in neurasthenia. Dr. J. D. Quackenbos, of New London (Atlantic Medical Weekly), who recently contributed an interesting article on the treatment of neurasthenia, says that it is perfectly safe to give thirty grains of trional (in hot beef tea); and in most cases this will insure eight to ten hours of refreshing slumber, and the second night, without the trional, sleep will be deeper than during the first. In desperate cases, where the patient awakes after two or three hours, an additional ten-grain powder should be ready to place on his tongue. The author also protests against the view of some neurologists that it is better for the patient to be awake night after night than to resort to hypnotics, and calls attention to the supreme importance of inducing physiological sleep, because in normal sleep the changes throughout the nervous system are recuperative and loss of sleep is fraught with greater damage to nervous substance than starvation through overwork or underfeeding.

"If it's a pill made by William R. Warner & Co. it's Soluble." There's only a few words in the above sentence, yet they are words which will impress all who read them. The theme is not a new one. The name "Warner" has long had the word "solubility" intimately associated with it. While we congratulate Messrs. Wm. R. Warner & Co. upon the perfect preparations bearing their name, we can not but state we do not see why they should not be perfect. Forty-one years in business constitutes a period, during which a progressive house should be able to give to the profession perfect preparations. The pills made thirty years ago and exhibited at the American Medical Convention, in Philadelphia, proved to be as perfect and soluble as the day they were made. The following is suggestive that Messrs. Wm. R. Warner & Co. have been very successful.

Messrs. Wm. R. Warner & Co., Philadelphia. Gentlemen: Last winter I unearthed a small vial of your Aloin Granules that by chance had been stowed away for twelve years. Having always used your Aloin Granules in my practice I of course used these, and, as far as I could determine, they were as efficient as the day they were made. I tried them on myself several times with results as good as could be wished for. I have kept a few as a curiosity. They are O. K. J. H. ADAIR.

Liberty, Ohio, June 9, 1897.

FOR GRADUATED MEDICS.—To those practicing physicians who desire to add to their store of knowledge by special study of the diseases of the eye, ear, nose, and throat, is offered an especially fine post-graduate course at the Chicago Eye, Ear, Nose, and Throat College of Chicago. This institution is pleasantly located in the handsome new Trade Building. We can not speak in terms which too highly commend its worthy faculty and splendid facilities for study and practical operating work. The gentlemen who compose the faculty are men well known for their scientific understanding and treatment of this delicate class of diseases, who represent the more advanced methods. The hours of instruction are from 9 A. M. to 6 P. M.

SANMETTO IN CYSTITIS AND PROSTATIC TROUBLES.—Sanmetto yields uniformly good results at my hands. I have prescribed it in chronic cystitis of long standing, where the standard remedies failed, and effected a permanent cure. It is certainly ahead of any thing I have ever used for enlarged prostate, and in fact for all prostatic troubles. J. F. LAMBERT, M. D., Farley, Iowa.

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"NEC TENUI PENNĀ"

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

*TRACHOMA, OR GRANULATED LIDS.

BY G. A. WHITLEDGE, M. D.

The subject of trachoma or granulated lids is one you will probably deem uninteresting at first glance, but if you will kindly refer to the statistics and ascertain the number of people who suffer all their lives from this disease and its sequelæ, you will I think agree with me as to its importance. As this Society is composed largely of general practitioners, I deemed the subject of granulated lids one that would probably be of as much interest as any subject to which I could invite your attention. Time will not permit me upon this occasion to speak of the complications and sequelæ of this disease. Hence my remarks will be confined to trachoma proper and its treatment.

History. It was at the commencement of the present century that trachoma began to attract the attention of physicians to any great degree. It was then that the disease first showed itself as an epidemic among the European armies (ophthalmia militaris). People were of the opinion that it had been introduced into Europe by Napoleon I. For when the latter, in July, 1798, landed in Egypt with an army of thirty-two thousand men, most of the soldiers were very soon attacked by a violent ophthalmia, and these were supposed to have brought with them upon their return to Europe the disease which was formerly confined to Egypt. However, subsequent historical researches have shown that the disease had already been endemic in Europe since antiquity. From time immemorial trachoma has existed in Europe as an endemic disease.

*Read before the Madison County Medical Society, Ellwood, October 5, 1897.

In the English army, during the year 1818, there were more than five thousand on the invalid list who had been rendered blind as a consequence of trachoma. In the Prussian army, from 1813 to 1817, twenty to thirty thousand men were attacked by it; in the Russian army, from 1816 to 1839, seventy-six thousand men were subjects of the disease. In Belgium, in 1840, one out of every five soldiers was affected with trachoma. The armies disseminated trachoma among the civil population through the discharge of soldiers affected with eye disease, through the quartering of troops, etc. When they had so many trachomatous soldiers in the Belgian army that they did not know what to do, the government applied to Junken, who was at that time a celebrated ophthalmologist in Berlin. He recommended them to dismiss the trachomatous soldiers to their homes. By means of this fatal measure, trachoma soon became diffused in Belgium to an extent which has been observed in no other European State.

Etiology. Trachoma originates exclusively by infection from another eye affected with trachoma. Infection takes place by transfer of the secretion; contagion by means of the atmosphere, the existence of which was formerly accepted, seems not to occur.

Fuchs says in all probability the secretion owes its infectious character to a micrococcus in regard to whose nature, however, investigations so far have led to no concordant results.

Since it is the secretion alone that transmits the infection, the danger of infection, which any given case carries with it, is in direct proportion to the amount of the secretion; the more profuse the discharge the greater the danger to those in the immediate neighborhood of the patient. The transfer of the secretion from one eye to another generally takes place through the medium of the fingers or chiefly through the medium of certain articles of the toilet, sponges, towels, handkerchiefs, etc. A special opportunity for this to occur is when a large number occupy a sleeping apartment in common and make use of the same articles mentioned above. Hence trachoma spreads most extensively in barracks, penal establishments, poor-houses, orphan asylums and schools of different kinds. Outside of these the same factor asserts itself, since trachoma attacks preferably poor people who live in crowded tenement houses and pay little attention to cleanliness.

Trachoma also varies in its geographical distribution. It is most prevalent in Arabia and Egypt, which is considered its proper home.

Pathology. Trachoma is distinguished by a hypertrophy of the

conjunctiva which constitutes the most characteristic symptom of the disease. From the roughness of the conjunctiva caused by this hypertrophy, the disease has received its name. The granulations or sago-like bodies are gray or yellowish translucent roundish bodies which push up the most superficial layers of the conjunctiva and are visible through it.

The different forms under which trachoma shows itself nowadays are regarded by some as distinct diseases. (Fuchs.) I shall not attempt at this time to describe the different types of this disease, but confine my remarks to the variety which is usually met with and which Stellwag has been pleased to call the mixed form. It is proved by microscopical examination to be almost the only one that occurs. Even in those cases in which papillæ alone appear to the naked eye to be present, trachomatous granulations are found in cross-sections examined under the microscope, either lying within the papillæ themselves or imbedded in the deeper portions of the mucous membrane. In microscopic cross-section these trachomatous bodies appear as a roundish aggregation of lymph corpuscles forming, as it were, a little lymphatic gland or lymphatic follicle analogous to those which compose Peyer's patches. The trachomatous granulation either passes without any sharp line of demarkation into the surrounding tissue, which is also very rich in cells, or it has a sort of incomplete capsule of connective tissue. (Fuchs.) This capsule, according to Raehlmann, is developed only in trachomatous granulations which have existed for a long time.

The treatment of trachoma resolves itself into both medical and surgical interference. Many and divers remedies have been used, first with enthusiasm, but later to be discarded and decried.

As medical treatment bluestone or sulphate of copper has held its own against all comers since time immemorial, and is to-day probably the best routine treatment for this condition. Its mode of application is of utmost importance if the desired results are to be expected. The frequency of its application will be determined by the susceptibility of the patient, its effect on the conjunctiva and the reaction following its application.

The usual way in which it is applied is for the operator to stand behind the patient, everting the lid, and a smooth stick is applied to the conjunctival surface. The pain attending its application can be materially lessened by the previous instillation of a few drops of a four-per-cent solution of cocaine.

Bluestone, bichloride of mercury, glycero-tannin, nitrate of silver, acetate of lead, and jequirity have been used with better success perhaps than any other remedies.

The remedies that have proved most beneficial in my hands are bluestone, nitrate of silver, and bichloride of mercury. In a certain class of chronic cases bluestone seems to have very little effect; in these cases I usually resort to bichloride of mercury often with very gratifying results. I use this remedy in strength from 1-500 to 1-300, rubbed well into the conjunctival surface, the eye often showing marked improvement after two or three applications.

In recent cases and cases attended with considerable discharge, nitrate of silver seems to act very beneficially to a certain degree, but I doubt its efficacy as a routine treatment.

Jequirity, long used in Brazil and introduced to the profession of Europe by De Wecker, became a very popular treatment for a time, but became less so owing to the loss of several eyes following its use. A three-per-cent solution of the infusion was applied to the conjunctiva which caused an active inflammation. This acute inflammatory process produced partial or complete absorption of the trachoma bodies. After the acute symptoms subside the usual remedies are continued for awhile; but, as stated above, some bad results following its application brought the remedy into disrepute.

The operation of expression has within the last few years gained some popularity. Herman Knapp, of New York City, invented a roller forceps which is unique in its construction and answers the purpose admirably. It is necessary to give a general anesthetic to do this operation; cocaine will not produce sufficient anesthesia. The lids are then everted and the conjunctival surface is gone over thoroughly until all trachoma bodies are expressed. The usual remedies are continued after the operation.

I have operated upon two cases recently that were of short duration, where the trachoma bodies were distributed over every part of the conjunctival surface. While they are not as yet cured, they are very much improved, and I think the duration of these cases will be materially shortened.

The treatment of trachoma to a successful termination is, as a rule, a long and tedious undertaking. The patient should be informed of the fact that his case is a serious one, and that it will require from six months to two or three years to effect a cure.

ANDERSON, IND.

CHRONIC SUPPURATION OF THE MIDDLE EAR.*

BY J. A. STUCKY, M. D.

Never in the history of medicine has there been as much careful attention given to one branch of that science as is to-day given to otology, and perhaps there is no part of the human organism which has been shrouded in more mystery and superstition than has the ear.

Now all over the scientific world these mysteries are being solved, the old superstitions becoming things of the past, and heretofore obscure and incurable affections are more thoroughly understood and many of the "incurables" entirely relieved or cured.

Chronic suppuration of the middle ear has long been a "thorn in the flesh" of both the general practitioner and specialist, and the old idea still prevails among some that "a discharge from the ear should not be interfered with, that nature will effect a cure," etc. Science to-day declares that no ear should be allowed to discharge, and that suppuration, whether from auditory canal or middle ear, demands that the physician go immediately to the cause of the disease and remove it, and not rely on haphazard palliative remedies.

The tendency of suppuration of the middle ear is not to heal spontaneously: it does not run a limited course and stop without leaving marks that seriously interfere with its function.

Acute suppurative otitis media, if not carefully and intelligently treated, as a rule results in chronic suppuration, and the larger per cent of these cases are undoubtedly the result of lack of proper attention to the first "earache and abscess in the ear" in childhood.

Prolonged suppuration not only impairs the general health, but frequently leads to serious and fatal meningeal and cerebral complications. Its tendency is to attack new structures and go from bad to worse, and an acute inflammatory trouble in a chronically diseased ear should cause anxiety to both patient and physician.

Suppuration first infiltrates, then absorbs, resulting in necrosis, then caries. The results of chronic suppuration of the middle ear are not only impairment of the general health from absorption of pus, but disease of the internal ear, facial nerve, mastoid process, lateral sinus, and the brain.

The extension of the middle-ear inflammation and suppuration to the meninges is much more frequent than is generally supposed, and

* Read at the May meeting of the Kentucky State Medical Society, 1897.

some of the large insurance companies now refuse to accept as good risks applicants who give a history of chronic aural suppuration, on account of the large number of deaths directly traceable to this trouble.

The majority of cases come to the physician for relief of deafness, vertigo, or offensive discharge, and we are often reminded by the patients that they feel better and hear more acutely when the ear is discharging, hence the idea, "It is better not to interfere with the suppuration, on the contrary to encourage it." Deafness, pain, and vertigo upon cessation of the discharge are not due to blockage of the auditory canal or meatus, but from blockage of the membrana tensa or flaccida, or else from solid or viscid accumulation in the attic itself, causing pressure and interference with sound-conduction and labyrinthine function.

I believe the causes of chronic otitis media to be (1) retention of pus and (2) chronic disease of the nasopharynx; and infection primarily takes place through the eustachian tube. I think the middle ear is rarely infected through the external auditory canal, except as a result of traumatism or extension of an external otitis to the drumhead.

No new light has been thrown upon the bacteriology of suppurative otitis media, Zaufal, Stern, Pes, and Gradenigo arriving at the same conclusion, viz: "There is no marked relation between certain bacteria and special forms of the disease."

Given a case of chronic suppuration of the middle ear, it is of paramount importance that the nasopharynx and accessory cavities be thoroughly examined and rendered as nearly normal as possible. I have found an unsuspected empyema of the maxillary sinus or ethmoid cells, as well as pressure of small adenoids, swollen turbinate, deflected nasal septum, or polypi to be the cause of prolonged discomfort and discharge.

The treatment of the disease under consideration may be divided into (1) medical and (2) surgical.

Assuming that the nasopharynx is receiving proper attention, and all cause of infection through the eustachian tube, obstruction to ventilation of the tympanic cavity, and free drainage of the nasal cavities is removed, we direct special attention to the middle ear, the seat of the trouble. I need hardly mention the value and absolute necessity of the use of the head-mirror and speculum. Without these you are groping in the dark and guessing at your diagnosis. Every physician should not only possess these, but be able to intelligently use them—

in other words, look and see what the trouble is before attempting to treat it. The first and most important object in our treatment should be to keep the parts clean and prevent the retention of pus. It is well to bear in mind that in the treatment of all middle-ear troubles we should observe the laws of asepsis; not only be sure that instruments, solutions, and dressings are clean, but also the fingers of the operator. Nothing is easier than to infect the cotton-wrapped probe by twisting it between the soiled fingers.

Cleanse thoroughly the external ear and auditory canal. For this purpose I prefer the bichloride of mercury solution, 1 to 3,000 or 6,000, or the saturated solution of boric acid, to be used as warm as the patient can comfortably bear it.

As simple as is the matter of syringing the ear, it is surprising to see how seldom it is properly done. I do not advocate the use of the ear douche, but prefer the ordinary piston or soft-rubber bulb syringe. In order to obliterate the curve in the auditory canal of the adult the auricle should be pulled upward, backward, and outward during the operation of cleansing. In infants the bony meatus is absent, and the inferior wall of the canal lies in contact with the superior wall. To convert this passage into a fibrous tube the walls must be separated by traction upon the auricle downward, backward, and outward. Too much solution should not be used, the quantity depending upon the character of the discharge. Usually from four to eight ounces is sufficient for the purpose. Having completed the cleansing, and thoroughly drying the canal, noting the condition of the meatus, we examine the tympanic membrane and cavity.

If the perforation is too small to allow free drainage, enlarge it, and keep the incision open. Should there be polypi or granulations in the cavity, these are to be removed with curette, snare, or application of chromic acid fuse on the point of a small silver wire.

Intratympanic injections, I think, are of doubtful utility only in exceptional cases; and I question the utility of applying remedial agents in the form of powders to the middle ear, for the reason that they can not be evenly applied, and the ideal powder insufflator has not yet been made. If too much of the powder is used it becomes "caked" in the canal or tympanic cavity, thus damming up the secretions, shutting off drainage.

Where the drum membrane is nearly all gone, I have frequently gotten excellent results from occasional applications of the impalpable

powder of acetanilid and boric acid, in proportion of one part of the former to three of the latter. As a routine treatment nothing has given more satisfactory results than the daily use of a dilute alcohol and bichloride of mercury solution, or formal, 1 to 4,000. This should be instilled into the ear once or twice daily, after syringing and wiping the canal dry with absorbent cotton.

Peroxide of hydrogen should not be used in the middle ear unless there is a very large perforation of the drum, so as to allow free and rapid escape of the bubbles of gas caused by the mixture of the fluid with the purulent secretion. I have known great pain and injury done by using this valuable remedy in cases where the perforation was small, hence this word of caution.

The value of inflation of the middle ear by Politzer's method is too well known to need more than a mention. This should be done at first daily, then the intervals gradually lengthened. Under no circumstances inflate the middle ear, where the nasopharynx is diseased, without first thoroughly cleansing the latter, so as to avoid danger of forcing mucus or muco-purulent secretion into the cavity.

The foregoing suggestions, combined with general tonics where indicated, constitute the medical treatment.

In simple or superficial cases of chronic suppuration of the middle ear, "if the inflammatory process has exhausted itself, free drainage and asepsis will effect a cure."

If, on the other hand, there be necrosis or caries of the ossicles or walls of the tympanum, the treatment just outlined will serve simply to diminish the discharge and hold the disease in check.

Dr. E. B. Dench, in a paper before the New York State Medical Society in 1896, says: "There is no such thing as 'special surgery.' The same broad principles which apply to caries and necrosis in other parts of the body are equally applicable to a similar condition in the middle ear." With this statement I heartily concur, and if upon examination I find carious ossicles and tympanic wall, I urge removal and curettement; no other treatment has given me such satisfactory results.

Why we should tolerate the presence of dead bone in the tympanic cavity I can not understand; and, from the results obtained in the thirty-six cases in which I removed one or both ossicles and curetted the attic, I am convinced that ossiculotomy (if caries exists) is not only the most conservative but the most rational treatment for the majority of cases of chronic suppuration of the middle ear.

The time allotted for the presentation of this paper will not allow me to enter into the details of this operation. So much has been written by eminent men, both in Europe and America, on this subject, that a minute description is not necessary at this time.

The object to be attained is the thorough removal of necrotic and carious matter, and to obtain perfect drainage, and I believe this can be successfully done through the auditory canal.

I close with a quotation from a paper I read on this subject before the Central Kentucky Medical Society, July, 1896 :

"This operation (ossiculotomy), thoroughly done, affords efficient drainage and renders thorough cleansing easy. As a result we often have material improvement in the hearing by exposing the stapes to sound vibrations, unless the latter is immovable on account of adhesions. In every case we should be prepared to do the Stache-Swartz operation if we find that necrosis has extended into the mastoid cells, or if on account of a narrow meatus and canal we find it impossible to obtain thorough and complete drainage and render cleansing and topical applications easy.

"The operation is done under general anesthesia, and the patient is up and out attending to duties usually in from two to four days.

"The after-treatment consists of cleansing and facilitation of drainage by use of a narrow strip of gauze introduced well into the cavity. This is to be kept up until the parts are thoroughly healed.

"Results obtained in the thirty-six cases operated upon are :

- "1. Cessation of the discharge.
- "2. Relief of fullness, dizziness, and general uneasiness, especially in the diseased ear.
- "3. Slight to marked improvement in the hearing.
- "4. Improvement in general health."

As already mentioned, the time allotted me does not allow of a minute discussion of this subject. The results obtained in the thirty-six cases referred to have been most gratifying, and the report of them in detail will be given in a subsequent paper.

LEXINGTON, KY.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, September 10, 1897, Frank C. Wilson, M. D., President, in the chair.

Partial Imbecility; Advisability of Trephination. Dr. A. M. Vance: I have had the father and mother to bring this boy before the meeting this evening in order to get the opinion of the members, and to determine, if possible, whether we are warranted in making any attempt to relieve him of a trouble which has existed two years.

The history in brief is that he is now seventeen years of age, and up to two years ago was a perfectly natural, healthy, vigorous boy, seemingly. The history does not show that he was exceptionally brilliant or quick intellectually, but he attended school and had advanced, his mother tells us, to what is called in the country the Fourth Reader Grade, and appeared like any average boy of his age, being able to perform all the duties usually required of such boys. At that time he received a blow on the right side of his head, just above and slightly back of the ear, by a boulder thrown with considerable force by another boy. Since then he has shown progressive diminution of the working faculties of the brain. At the present time he is able to talk to some extent, there is some intellection, but there is absolutely no connection in what he says; and while he articulates some words distinctly he seems to possess no adequate idea of their meaning or application; he walks with difficulty, and his gait is at all times swaggering and uncertain. In stature he is about the average size for a boy of his age. He has never suffered any severe pain in his head according to the history we are able to obtain from the parents; there is a slight scar on the scalp, but no other evidence of the injury upon external examination; he often complains, however, as you have heard him do since he has been before you, of being sick, but just what the statement means we are unable to determine. His head has been shaved for the purpose of more careful examination, but no external evidences at the site of the injury are apparent except the scar mentioned. Dr. Cheatham examined his eyes a few days ago, and reports that he has beginning

* Stenographically reported for this Journal by C. C. Mapes, Louisville, Ky.

atrophy of both optic nerves. The boy seems to understand every thing that is said to him. There is no paralysis so far I am able to discover.

I have told the father and mother that the members of this Society would be very glad to make a thorough examination, and they have requested permission to be present to hear what is said, after which they will decide whether they will agree to operative measures if the consensus of opinion is that surgery is indicated.

Discussion. Dr. William Cheatham: The condition of the boy's eyes will be of little assistance in making a diagnosis. He simply has primary atrophy of the optic nerves. I have seen in the last week or so two cases of primary atrophy of the optic nerves, one in a boy aged sixteen years, the other a boy thirteen years of age. No other symptoms whatever were present.

Dr. A. M. Cartledge: The case is an extremely singular one to me, and I am at a loss to express an opinion about it. The symptoms present, while seeming to be attributable to the injury received, are of such a vague character and would indicate such a disseminated lesion, if due to the injury, that I confess I do not know exactly how to classify the case. It is certainly a remarkable case in many respects, both as to the history and the symptoms present. Might it not be one of those vague conditions occasioned by hemorrhage and organized clot disseminated over a considerable area?

Dr. W. L. Rodman: I think the line of action for the surgeon will depend on an accurate history of the condition of the patient up to the time of the injury. If it can be clearly shown that his condition was an average one before the injury, that is, that he was a normal boy up to fifteen years of age, possessed of average intellection, I must say that this condition has deteriorated so much in the past two years that, in spite of localizing symptoms, I should be very much disposed to advise removal of a large button of the skull, to explore the membranes first, and, if no cicatrix is found in the membranes, I should open them anyway and examine the brain carefully, for I believe there is very little danger in it, and his condition is such that it certainly ought to be remedied if possible. The symptoms and history are very vague it is true. I believe there is a dilated left pupil, but this is probably of little importance.

I have never advocated intracranial surgery in so-called conditions of microcephalus, and, while this condition is in a way allied to that,

still I believe surgery here would promise something. His condition certainly does not promise any thing now, and, in view of the fact that an exploration can be made with comparative safety, I should advise operation. Much might be gained, and an exploration would be attended by little danger.

Dr. A. M. Vance: I failed to state in my opening remarks that I interviewed the doctor who saw this boy at the time he was injured, and who had known him for quite a long time prior to the injury, and his testimony goes to prove that previous to the injury the boy was perfectly normal and natural, the doctor stating that he had often sent the boy on errands, that he had taken care of his horse, driven with him, etc., and was just like any other boy at fifteen years of age.

I confess I am greatly puzzled as to what the lesion may be, still I believe we are warranted in making an effort in a clean way to examine the brain, particularly on the side of the injury, taking the scar for our guide to a certain extent, possibly going a little anterior to the site of the injury, and I have proposed this to the father and mother. My object in bringing the boy before you was to get an expression from the surgeons present as to whether such a procedure would be warranted, based upon the history obtainable and the conditions as they exist. I will say that the boy was sent to the Feeble Minded Institute, and was sent away by the physician in charge as a dangerous lunatic, with the recommendation on his part for operative interference.

Epithelioma of the Rectum: Excision; Recovery. Dr. John Mason Williams: Those of you who were present at a meeting of this Society in April of the present year will remember that I reported a case of epithelioma of the rectum, in which I excised five and one half inches of the lower part of the gut, bringing it down and stitching to the skin. The specimen was presented at that time.

It has now been five months since the operation, and I have brought the patient before you for examination, as the case is of considerable interest to those who pay any attention to rectal surgery or surgery in general, and I would like for you to examine him. I also brought the specimen for the benefit of those who may not have been present at the former meeting.

This case at the time I saw it had been under treatment of other physicians for several months, he had been treated by local applications and warm-water injections. He was referred to me, and I advised

immediate operation. In making an examination in the squatting position, I could pass my index finger well above the upper margin of the growth, and thought, as I could get my finger above it, I could excise the rectum to a sufficient extent to include all of the growth and bring it down and stitch to the skin. This procedure was carried out on April 20, 1897, nearly five months ago. He is fifty-one years of age. He had lost flesh before the operation; when he went into the infirmary he weighed about one hundred and twenty-one pounds; at the present time he weighs one hundred and fifty-eight, having gained thirty-seven pounds in weight since the operation, and appears to be in excellent general health.

There is practically no control over the fecal evacuations as far as the sphincter muscle is concerned, as the muscle was entirely destroyed by the operation. The man, however, has been trained to go to the closet regularly, and he also is warned and usually responds to the call immediately. He says his bowels acted this morning, and he has not had an evacuation since. The pad, which has just been removed, is only slightly stained by the mucous secretions from the bowel, showing no evidence of the oozing of fecal matter. He tells us that his bowels act twice per day.

The specimen which I show you has become shriveled from the action of the alcohol in which it is preserved, and presents about half the natural size. It is everted, the outward portion being the mucous membrane of the bowel. At the time of its removal, when made taut, it was six and one half inches in length, when relaxed it was five and a half inches.

I show the case simply to illustrate the results which may sometimes be obtained by operative interference in cancer of the rectum. Further comments are unnecessary, as the patient and the specimen speak for themselves. The specimen was submitted to microscopical examination and was shown to be an undoubted epithelioma.

Discussion. Dr. A. M. Vance: This case proves that possibly some of us have been letting such patients go on from bad to worse, rather than making an effort to better their miserable condition. The result in this instance will encourage me in performing more radical operations for cancer of the rectum than I have ever done in the past.

Dr. W. L. Rodman: I saw this patient five months ago, and while I had no doubt about the correctness of the diagnosis at that time, nor

did I doubt that proper surgery was given the patient, I of course had some doubt as to whether or not he would return here at this time in as good condition as he is. It certainly is one of those cases that was seemingly extreme, and the result is one which should make the heart of the patient, the operator, and all of us who are interested in the subject, glad. It is a beautiful case, and should emphasize the fact that in dealing with malignant disease in all situations, where it is reasonable to suppose that the entire growth can be gotten at and removed, we should practice aggressive conservatism and operate where we have a reasonable hope that we can remove all the growth, and the result in this case teaches us what we may expect from such measures. It indicates the results which may be obtained not only in malignant disease of the rectum, but in other situations where we can remove the entire growth.

Dr. L. S. McMurtry: Dr. Rodman has expressed what I think would be the expression of every one of us. It is a beautiful case, and I must say that it is the best result I have seen from radical treatment of malignant disease of the rectum. I saw several such cases operated upon at Billroth's clinic several years ago. I did not have an opportunity to see them, however, after the operation. The patient before us demonstrates that the results of modern surgery are most gratifying.

Dr. T. S. Bullock: I can add nothing except to reiterate what the previous speakers have said. They have expressed my ideas in regard to the case.

Dr. A. M. Cartledge: I had the pleasure of seeing and examining this patient before the operation. I am free to say that it was in my opinion near the border-line of an inoperable case, but I thought something might be done by getting more room than by the ordinary excision; that is, by removing some of the bone, the coccyx at least, and perhaps part of the sacrum, and thought that would have to be done to satisfactorily get above the malignant growth, and so stated to Dr. Williams at the time. However, after he had thoroughly examined the patient, he thought he could do a very high resection of the rectum; I believed he intended to perform the other operation until he found he could pass his finger above the upper margin of the growth. It is the highest resection I have ever seen done for malignant disease of the rectum.

The lesson to be drawn from this case is one to which I have called attention previously in reporting resections of the rectum for malignant

neoplasms: It is this, that the course of malignant disease in the alimentary canal is vastly different from that occurring in other structures of the body, clinically. First, in its very slow progress, the long time malignant disease will exist in the mucous membranes without even coming to the point of stenosis and without any observable impression upon the nutrition of the patient; and second, that while we should be as free in our excision as the anatomical conditions will permit, that the prognosis in any case of carcinoma involving the alimentary canal, where we can not cut wide in our excision as could be done in other structures of the body, the prognosis as to recurrence is vastly better than it is when the malignant disease involves other tissues. I am satisfied, and think statistics will bear out the statement, that in cancer of the stomach or other portions of the alimentary tract, for instance the cases that have survived pyloric excision, that the prognosis is much better than when the malignant growth involves other portions of the body, even although we are not able in some instances to cut wide of the mark as we do in other situations. We know that if the least infected tissue is left in operating for cancer elsewhere than in the alimentary canal, recurrence is usually very prompt, whereas this does not seem to prove true in cancer of the stomach, pylorus, rectum, etc. This case should certainly stimulate us to attack malignant disease of the rectum surgically when there is a possibility of removing all the growth, and we may have a reasonable hope for non-recurrence. I have been surprised at the non-recurrence of malignant disease of the rectum after excision. I have operated upon five or six cases of malignant disease of the rectum, some of them six or seven years ago, and the patients are alive and well to-day, with no signs of a recurrence.

Dr. Rodman: Are you aware of a case of cancer of the stomach, that after operation has passed the three-year limit?

Dr. Cartledge: It is my understanding that one of Billroth's cases of undoubted cancer of the stomach, after excision, passed the eight-year limit.

Dr. W. L. Rodman: The reason I asked the question is, that Butlin and others make the emphatic statement that none of these cases have passed the three-year limit. The prognosis in the case before us is made more favorable by the fact that the cicatrix is perfectly smooth, there exists no induration anywhere, the mucous membrane is perfectly smooth as far as the finger can reach. I have very little hesitancy

in saying the chances are that this man will get a radical cure and that the disease will not recur.

I believe Dr. Cartledge has stated the exact condition of malignant disease of the rectum, that the course is usually chronic, but do not believe he has stated the actual condition of affairs as regards cancer of the stomach. Malignant disease of the stomach runs a much more rapid course than does malignant disease of the rectum. The average duration of malignant disease of the rectum is three to six years, whereas malignant disease of the stomach will kill in less than half that time. So far as operations for malignant disease of the stomach are concerned, this certainly is not a bright chapter in surgery up to the present time. Although Billroth spoke encouragingly upon the subject and called it an epoch-making operation when he made his first resection of the stomach twelve or fourteen years ago, I believe there is not a case on record to-day where the patient has passed the three-year limit. Butlin makes the statement that there is not.

Dr. William Bailey: While it is not my purpose to discuss surgical matters, it has occurred to me that an explanation of the fact that stomach cancers run a much shorter course than malignant disease elsewhere may be because of the greater importance of the organ involved, and that the patient dies through failure of nutrition. The patient may die because of failure of the functions of the stomach rather than because of the existence of the cancer as such. Interference with nutrition will account quite satisfactorily for the fact that stomach cancers run a much shorter course than cancer of the rectum or elsewhere, the organ involved not being so important as the stomach. Death from cancer of the stomach simply means that a vital organ is involved which gives us death through asthenia.

Dr. John Mason Williams: I have nothing to say in closing the discussion, except that this man emaciated very rapidly after entering the infirmary, much more so than generally follows any surgical operation, showing that it was due to the malignant disease largely. As already stated, he has gained thirty-seven pounds since the operation, and is now apparently in a perfect state of health.

Removal of a Murble from the Trachea of a Dog. Dr. A. M. Vance: I was recently called one night by a family whom I have treated surgically at different times, the message stating that a very fine dog of theirs had been in trouble, and they desired me to see it to ascertain if

any thing could be done to save its life. I went to see the animal the following morning, and found a large St. Bernard puppy, five or six months old, that had been treated for two weeks by two veterinarians upon the belief that the trouble was distemper, and they had so stated to the family. The dog was very weak and seemed about ready to die. I watched him for a short time and discovered that there was some trouble in respiration; his breathing was of an intermittent character; he would breathe all right for a few minutes, then dyspnea would become pronounced for a short time, followed by free respiration again. After studying the case carefully I came to the conclusion that there was some kind of a foreign body in the trachea. I immediately put the animal under the influence of ether and removed the marble which I show you, and the dog made a prompt recovery. The marble, as you will observe, is of the variety ordinarily used by children, and measures three quarters of an inch in diameter. It is perfectly smooth, and after opening the trachea it was impossible to grasp the foreign body with ordinary forceps; in order to accomplish its removal I had to insert my finger below, and as it came up from the lung it was grasped or caught in the basin formed by a double tenaculum, and in this way removed.

Polycystic Ovarian Tumor. Dr. A. M. Cartledge: Within the last two years I have operated upon a number of cases of ovarian cystomata which presented a peculiar condition, with macroscopical evidences of malignancy, or so closely allied to malignancy that there is some question as to their nature, and I simply show one specimen of such a growth to-night to elicit discussion upon the subject especially as regards its pathology.

This cyst was removed yesterday from a woman, aged thirty-eight years, with the history that the tumor had grown rapidly, which, however, has no special significance, as we know that ordinary ovarian tumors sometimes develop very quickly. The woman stated that she had not noticed the tumor until February of the present year, and when removed yesterday it had attained enormous proportions, as you will see. There was one large sac filled with ordinary ovarian fluid, and at the bottom of the sac, growing from the right side, there was a solid mass, the outside of which, as far as I am able to trace, represents the broad ligament, the tube also being recognized. There is no evidence of the tube and ovary being spread out with the cyst, as is

frequently observed in true ovarian cystomata, but the base or the solid portion of the growth seems to be the very much enlarged ovary with numerous small cysts. In feeling the cyst before removed I thought at first that it might be a dermoid with cyst proliferation, or that it might possibly be malignant. After removal and splitting open the mass, however, it is found to be composed of an enormous number of small cysts.

I had a similar case about a year ago, the specimen removed not being shown to the Society, in which there was also a very rapid growth of the tumor. It was thought to be malignant from its clinical appearance, but there has been no evidence of a return.

In operating upon the present case I cut out the broad ligament rather deeply, believing the growth might be malignant, but examination of the specimen proves otherwise. I have removed three or four other tumors within the last year or two, which presented the same macroscopical appearance as the one before you, and there is some question as to the pathology, whether it is a border-line case approaching malignancy, or whether it should be classified as a polycystic ovarian tumor.

Discussion. Dr. L. S. McMurtry: There is no class of tumors that present such a variety of structure, especially in one specimen, as ovarian cystomata. The specimen Dr. Cartledge has presented is surely a polycystic ovarian cyst, that part above being a large monocyst. The history is that the tumor grew rapidly, and if it had been allowed to continue for a considerable period of time, that part which looks like stroma of the ovary would have undergone additional cystic degeneration, the smaller cysts would have increased in size, and would have presented the great variety of colored contents which are occasionally encountered. Dr. Vance will remember a case which we operated upon some years ago, where there was the greatest variety of hues in the coloring of the various cysts. I have seen dermoids that had in one specimen a monocyst, polycysts, etc., besides the dermoid. These growths at various stages of their development will present the characteristics shown by the specimen before us, which I think Dr. Cartledge will agree is a polycystic ovarian cystoma.

Dr. W. L. Rodman: The tumor presented by Dr. Cartledge is a beautiful specimen of multilocular endogenous cyst. I do not believe it is malignant. As I remarked privately to the doctor a moment ago, this

tumor seems to be a parallel one to those often found in the testicle—the hydatid testis of Cooper.

Gall-Stones of Peculiar Shape. Dr. W. O. Roberts: I wish to exhibit these specimens simply because of their peculiar shape. A short time ago I operated upon a lady, sixty-four years of age, for suspected gall-stones. There was some question among those who had seen her whether the trouble was gall-stones or malignant disease. She had been suffering with attacks of colic for something more than a year. When I operated upon her she had been sick in bed for two months. She was a very fleshy woman, with a large abdomen, and we could not make out any gall-bladder by percussion. An incision was made in the abdominal walls over the region of the gall-bladder, and after isolating the gall-bladder it was opened and the calculi which I show you removed. They were all in the gall-bladder proper. I present them because of their peculiar shape; they look quite like the jack-stones with which children are accustomed to play.

Discussion. Dr. William Bailey: The case reported is interesting, especially as regards the shape of the gall-stones. I can not conceive it possible that stones could be formed in such shape within the gall-bladder, particularly if there existed more than one, because friction, one against another, would ordinarily give us the faceted condition so often witnessed. Is it not possible that these stones were formed in the ducts, perhaps about the bifurcation, then that they ulcerated into the gall-bladder afterward from the liver itself? I can not conceive of such stones being formed in a cavity like the gall-bladder where friction would necessarily have made them different in shape.

Dr. A. M. Cartledge: I have several specimens of gall-stones similar to those exhibited by Dr. Roberts, not so perfect in shape, but much like them. There is no question but a stone of this conformation is the result of agglutination of a number of small gall-stones through inspissated mucus, and then they have become dry and hard. I have several where the outlines of the smaller stones can be made out; some of them look like a bunch of grapes, six or eight small ones being glued together. I think this is the explanation of this peculiar conformation.

Coma and Impending Death Four Weeks after Injury to the Head. Dr. A. M. Vance: Four weeks ago a young man was playing ball at Jasper, Ind. The ball was thrown by the pitcher and struck him on the

left side of the head just above the ear. He was knocked completely senseless, and remained so for some time. He was carried to a neighboring drug store, and after some local applications came to himself, and after coming out of the unconscious state vomited freely. He boarded the train that night at Jasper and rode to Louisville; getting off at the Fourteenth Street depot he walked to his home at Nineteenth Street. From that time on he has gradually gone into a semi-comatose state, and is now, as Dr. Rodman reports (I have not seen the patient for two weeks), in a very bad condition. I saw him four days after the injury; he was then able to answer a few questions, but was unable to continue conversation in an intelligent way. Dr. Cecil saw him the day before I did, and says his condition at that time was about as I have described. We saw him together a week afterward, and were then unable to get any thing out of him; when pinched he would say something, or show that he noticed it, but was unable to answer any questions. There was not the slightest paralysis, and no eye symptoms from ophthalmoscopic or ordinary examination. He was taking liquid nourishment but nothing else, and has gone on progressively without fever until he is now in a very serious condition. What the intracranial result of the injury was it is hard to say. I could not make out any evidence of the injury outside, or any thing to indicate what was the cause of his present trouble. The history shows that he has been the subject of tinnitus aurium on that side for some time, although this is of no importance.

It is a very curious case, and recalls one seen with Dr. Bailey several years ago, the patient recovering after four or five months. It was a similar injury, the symptoms present were also similar; there was no evidence outside of the injury in that case after the first day or two, when puffiness of the scalp subsided. The patient was a lady in middle life, and she went to a sanitarium, I believe, in Lexington, and remained for three months, at the end of which time the history is that she could write intelligently, but was unable to sign her name; a few days afterward complete intellection returned, and she became perfectly well. A rather curious feature about the case was that she did not know any thing about what had happened, nor the doctors who had attended her, between the time of the injury and the time she left the sanitarium.

I would like to have the views of Doctors Cecil and Rodman upon the case I have briefly reported, and would also like for Dr. Rodman to express his ideas concerning the patient's condition, as he has spoken of the case to me privately.

Discussion. Dr. J. G. Cecil: I saw the patient the second day after the injury, and he was then in a condition which was more or less somnolent, with not the slightest evidence of paralysis so far as I could discover. All I could make out of the case was that it was probably one of concussion, and I gave a favorable prognosis. Dr. Keller had been giving him I thought very intelligent treatment in the shape of saline purgatives and the bromides to induce sleep. He had been giving bromides rather freely, so that the patient at that time was, I thought, considerably under the influence of bromides, that he had suffered more or less lethargy from that medicine. I suggested to Dr. Keller that the only change I would make in the treatment would be to give less of the bromides. I was consequently very much surprised when Dr. Vance was called; and later we saw the patient together as he has stated. Even upon my second visit with Dr. Vance, which was a week or ten days after receipt of the injury, there was still no evidence of paralysis or any lesion of the brain that could be localized. What the condition is or was at that time I am very much at a loss to know. Of course the question of hemorrhage was considered, but nothing in the history of the case or in his condition at the time we saw him justified such a conclusion. Then there was total absence of any of the natural results of hemorrhage, such as inflammation, suppuration, etc.; there was absence of all symptoms pointing to obstruction in brain function, such as tumors, abscesses, blood clots, etc., and I was unable to form any conclusion whatever as to the nature of the condition, and do not know now what the trouble is. The last time I saw the patient he was in a condition which resembled that we sometimes see in typhoid-fever patients in the third or fourth week of the disease. There had not been, however, any special typhoid fever symptoms or any thing indicating this disease, and a pretty rigid search at my last visit failed to reveal any thing of this kind. Still I thought it possible he might have typhoid fever simply co-existent with the injury, but nothing as far as I know has developed since then to justify such a conclusion. If the man has continued to this date in the same condition or worse, it strikes me that it must be due to some inflammatory process. I will be very glad to hear from Dr. Rodman. In reply to the question I will state that the temperature was normal when I saw him and continued so; there has never been any rise in temperature, with practically a regular normal pulse of seventy or seventy-five to the minute. His pupils were normal and responsive.

Considering all the circumstances connected with the case, I believe it to be an abscess of the brain, which we may have without any symptoms indicating such a condition.

Dr. W. L. Rodman: The case is an exceedingly interesting one, and I was asked to see the young man to-day in consultation with Dr. Keller. The point that I wish to emphasize is that the patient undoubtedly had well-marked concussion; he was unconscious for some time; when unconsciousness passed away it was followed by vomiting; when he came to himself he commenced complaining of pain in his head, and continued to complain of central pain until he passed into this somnolent condition the second or third day afterward. There was no elevation of temperature at the visit I made this morning, four weeks after the injury. He has emaciated very much, which is probably explained by the fact that he has not taken a great deal of nourishment; his pupils are still responsive as they were when Dr. Cecil saw him, but they are somewhat dilated. There is no paralysis, and he seems to move both legs and arms equally well. There is no paralysis about his tongue or face as far as I can see. He would not put out his tongue for me, and I was told that he had never done so for others. His teeth are covered with sordes, tongue brown and slightly cracked.

I do not see how there can be but one diagnosis made at the present time, and that is abscess of the brain. I think a man who has been in his condition for a month without any depression of the bone must have a brain abscess; I do not see what else it can be. I take it that there must have been a hemorrhage at the time, and that the clot instead of undergoing resorption has broken down; suppuration followed, and now he has an abscess. Dr. Cecil spoke of the fact, and it is certainly true that we can not be controlled or guided by the same symptoms in dealing with abscesses of the brain as we do in deep-seated suppuration anywhere else in the body. It is not exceptional that there is no elevation of temperature, and you are not apt to get the sweating at night or when the patient falls asleep that you do in deep-seated suppuration elsewhere. In fact this is quite the rule, and I remember to have emphasized that point in a paper on Injuries of the Brain read at the meeting of the Kentucky State Medical Society at Lebanon, Ky., eighteen months ago. This man has passed into a condition that would be called compression rather than concussion. Compression, however, is not complete because there is no paralysis. I can

not understand what would keep him in that condition except an abscess of the brain.

We can have compression but from three or four things: From depressed bone, then of course compression would have been instantaneous; we might have it from extravasation of blood, and that would be practically instantaneous; it could not have resulted from a foreign body, because no foreign body entered the skull. So, in the absence of all these ordinary causes, it must be due to inflammatory products, and an inflammatory process that would continue to press upon the brain at this time must be pus rather than serous effusion, I think. Believing that the man has an abscess of the brain, I advised the operation of trephining when I saw him this morning. There are no localizing symptoms to guide one, but we know exactly where the injury was, and if we trephined there and found no abscess, then I should not hesitate to trephine on exactly the opposite side of the brain, because we know in conditions of concussion, and I always believed that concussion means a bruised brain and not simply tumefaction of the brain as the older authors taught, that it is not infrequently the case that the damage to the brain is on the opposite side. It is even more true of cerebral injuries than fractures, viz., that they result from *contre coup*. I would make a large opening in the skull, and if the dura was found to be opaque or bulging and did not pulsate, then there would be most positive evidence that there was an abscess beneath. Still if we were not satisfied, we could aspirate the brain with a fine hypodermic needle, and, failing to find pus there, I would open the skull on the opposite side. The condition of the man is such that I am certain he will die in a very short time unless something is done. I do not see what else can be done except to trephine.

I would like to make one other point: While the presence of paralysis is always a very valuable sign in locating a lesion of the brain in compression, the absence of it does not amount to much, because the lesion in this case we know is in an area of the brain where we would not expect paralysis necessarily. It is below the leg center, below the arm center, and even below the face center. It seems, from the history of the case, that in the early part of his illness he showed some trouble about his speech; he would try to say words and could not do so, and his family insist that there was something wrong with his speech. I think the pressure is very near the speech center, down below the leg, arm, and face centers. The case leads me to refer to one

which Dr. Roberts will remember, a little girl who was shot with a small toy pistol, and although the skull was not broken at all, not even a linear fracture of the skull, the child developed an abscess of the brain, and he operated, evacuating quite a large amount of pus, I should say at least one and a half ounces. There was no discernible injury to the skull at all. I have been thinking of that case to-day since seeing the young man.

Dr. J. M. Ray: During the present summer I have been reading Macewan's book on pyogenic infectious diseases of the brain and spinal cord; he goes very thoroughly into the subject of brain abscesses, and reports a number of cases operated upon. The majority of these cases, as you know, are the result of extension from the ear, and the development of the abscess is slow, and the symptoms pointing to abscess are so slight that it is exceedingly difficult to make it out. Cases are reported in which the entire temporosphenoidal lobe was one immense abscess cavity, with no paralysis. I had a case last spring, a man who came to me from across the river, in which there was ear trouble and paralysis of the external rectus muscle on the affected side. I examined his ear and found an aural polyp which I removed; the man went on without any fever, he was dull, stupid, and wanted to sleep all the time, and I suggested that he had an abscess of the brain and ought to be trephined, but the family were opposed to it. They took him back home, and two weeks afterward telegraphed me to come over at once. I found the man in coma, and he remained so for four or five days, when he died. We held a *post-mortem* and found a large abscess in the temporosphenoidal lobe, which had originally been a subdural abscess and had been walled off, containing a quantity of cheesy material. Evidently the coma did not develop until this had ruptured into the middle lobe, and he then went into coma and died. His pulse was slow, temperature about normal, if any thing slightly subnormal at times.

Dr. William Cheatham: I have a patient at the infirmary at the present time, a man from Springfield, Ky., with a similar condition of affairs, the result of a blow in about the same location. He came here with a suppurating ear, which under appropriate treatment has gotten somewhat better; he has had no symptoms of cerebral trouble except paralysis of the external rectus of that side. I saw a similar case reported in the British Medical Journal recently, in which the author said that paralysis of the external rectus was a common symptom in

such injuries, and that the trouble was always deep down at the origin of the nerve.

Dr. A. M. Cartledge: From the history of the case I think there is little doubt but the patient has a brain abscess, which I think is located on the side of the injury. I think, trephined over the site of the injury, an abscess will be found. I saw a woman a few years ago who had been struck with a brick in the same situation, and she presented about the same line of symptoms, except she had throughout a subnormal temperature and a coated tongue. In that case, however, I remember distinctly that there was very marked speech involvement. There was a decided inco-ordination of words; she would begin to talk and rattle it off like a machine; there was absolutely no sense in what she said. There seemed to be no co-ordination of words whatever. After two weeks' observation in this condition, I trephined at the site of the injury and evacuated one and a half ounces of pus from a brain abscess. She died a few days later from septic meningitis. The abscess was situated chiefly in the temporosphenoidal lobe.

Dr. H. A. Cottell: I agree with the gentlemen who hold the abscess theory. The point made by Dr. Rodman as to the probable situation of the injury is a very good one. It is too low down and too far back to involve the Rolandic areas. If there is a history of aphasia, it must be ataxic rather than amnesic aphasia, as the convolution involved in the latter is in the anterior lobe. However, in lesions of the temporosphenoidal lobe the co-ordination of speech may be interfered with, and pressure above the eye center or even upon the posterior lobe may cause the trouble. There can be no reasonable doubt as to the diagnosis in this case. The original cause was what you might call a swelling hemorrhage if you please, a slight hemorrhage at the time of the injury becoming later more extensive. The history of the case seems to indicate that, but the later pathology is, as Dr. Rodman has expressed, that of suppuration. In a case of this kind there would necessarily be pressure symptoms.

Dr. W. O. Roberts: I believe in the abscess theory in connection with this case, and agree with Dr. Cartledge that the abscess will be found under the site of the blow. I had a case this summer in a man who was kicked by a horse on the same locality of the head; he was never unconscious, and after a few minutes got up. He was on a ferry boat at the time. He was taken across the river, and I saw him in the course of an hour or two after the accident occurred. He seemed to be

perfectly at himself, but was unable to talk at all, and there was some puffiness of the scalp, but no wound could be discovered. I had him brought over to this city and made an exploratory incision, found a fracture of the skull and removed several fragments of bone. He went along in about the same condition as when operated upon for six days before he commenced to talk, then made a good recovery. It was simply a case where the blow was in the same locality as the case reported by Dr. Vance, but in my case there was a fracture, and I suspected fracture from the beginning because of the hematoma on the scalp. I think Dr. Rodman will be justified in trephining in the case under discussion.

Dr. A. M. Vance: At the time I saw this patient he was not in coma; the last time I visited him he was sitting up in bed. He seemed able to articulate fairly well at that time. I saw him the last time about two weeks after receipt of the injury. There were no optical symptoms then, and no fever, he had a good strong pulse, and he was able to take nourishment fairly well. We discussed trephining at that time, but as there was no symptom pointing to the injury, not even a wound on the scalp, I did not feel that any operation was warranted. I believe now that the proper thing to do is to make an exploration. I am sure, however, that I do not know what will be found.

Dr. J. A. Larrabee: In the report of this case nothing was said about the respiration. I would like to inquire if there was any variation in the respiration, as we know that arhythmical respiration is a symptom of importance in brain lesions.

Dr. W. L. Rodman: His respiration is not typical of coma; it is a shallow respiration and somewhat irregular. It is not the characteristic stertorous breathing of coma. The patient is simply lying in a condition more like coma than any thing else, except that there is no stertorous breathing.

Dr. J. A. Larrabee: I would ask Dr. Grant, what is the pathology of pus formation in the brain without any blood clot? Unless there had been hemorrhage, would we have abscess?

Dr. H. H. Grant: The proposition as to the pathology of pus formation within the brain is pretty generally understood as being explained upon the ground that wherever there is a weak spot, a *locus minoris resistentiæ*, the germs that are constantly circulating in the blood establish themselves at this point, and from the aggregation of germs in one of these weak spots the formation of an abscess may

result. There is no question about that aspect of the case being satisfactory to all parties. Suppuration does unquestionably occur in many situations, due simply to the lodgment of germs circulating in the blood which would otherwise be harmless, but finding a weak spot, a suitable place for colonization, they develop and multiply in this manner.

JOHN MASON WILLIAMS, M. D., *Secretary.*

Reviews and Bibliography.

A System of Practical Medicine. By American Authors. Edited by ALFRED LEE LOOMIS, M. D., LL. D., late Professor of Pathology and Practical Medicine in the New York University, and WILLIAM GILMAN THOMPSON, M. D., Professor of Materia Medica, Therapeutics, and Clinical Medicine in the New York University, Physician to the Presbyterian and Bellevue Hospitals, New York. Volume II, Diseases of the Respiratory System, Diseases of the Circulatory System and Mediastinum, Diseases of the Blood, Diseases of the Kidney, Diseases of the Bladder and Prostate Gland. Illustrated. 941 pp. Philadelphia: Lea Brothers and Company. 1897.

The contributors to the second volume of this comprehensive work embrace the names of Drs. Richard C. Cabot, Thomas D. Coleman, Warren Coleman, Elbridge G. Cutler, J. N. Danforth, Reginald H. Fitz, William Whitworth Gannett, Irving S. Haynes, Alfred Lee Loomis, Henry P. Loomis, A. Lawrence Mason, Charles E. Quinby, Frederick C. Shattuck, S. Edwin Solly, James Tyson, Herbert B. Whitney, and James T. Whittaker, an array of names that makes evident at a glance the selection of writers who will do justice to the theme and reflect credit on American medicine.

The first subject considered upon which there is likely to be considerable diversity of opinion is pneumonia, which is discussed by Dr. Fitz, the two points admitting of discussion being the etiology and treatment. The writer allows pneumonia to be contagious, though he does not exactly contend for that view, and admits that other micro-organisms may be discovered in certain cases to the exclusion of the pneumococcus. This being the case, it would seem that pneumonia is a form of reaction on the part of the lung tissue against irritation from several sources, the disposition to react depending more upon the accidental state of the lung than upon the particular disturbing bacteria.

In the matter of treatment the author, like most of those who have been thought worthy to contribute to standard literature, would place most reliance in careful nursing and diet, adverting to the fact that treatment, as far as authentic records go, has not improved the mortality records of the disease, which suggests a curious query as to the difference between the book

treatment of many diseases and the treatment recommended in the transient literature of the profession.

The article of Dr. Whittaker on angio-neuroses is interestingly written on an interesting subject, the author showing how hemorrhagic stigma, so long regarded by one part of the religious world as imposture and by the other as miracle, may be produced by suggestion.

The entire work, however, is well written and well edited, and while adding to the richness of the student's resources, will also add to his perplexity, when called on to select a guide among the many excellent candidates for public favor now before the medical public. The press-work, like all that from the house from which it emanates, is beyond criticism. It would be difficult to point out a defect or suggest an improvement.

D. T. S.

Tuberculosis of the Genito-Urinary Organs, Male and Female. By N. SENN, M. D., Ph. D., LL. D., Professor of Practice of Surgery and Clinical Surgery, Rush Medical College, Chicago, etc. Illustrated. 317 pp. Price, \$3.00. Philadelphia: B. A. Saunders. 1897.

Tubercular affections of the genital organs are among the most distressing that humanity is subject to, really in the large proportion of cases producing apprehensions of cancer, which they fall not far behind in fatality.

In literature this class of affections of the organs named has been somewhat neglected in comparison with similar affections by other organs, but even if this literature were ever so abundant, the surgeon as well as the physician would welcome the least word, much more a systematic treatise, by the great Chicago surgeon.

He writes on no subject until he is master of it, and he is capable of the fullest mastery. The space allowed himself by the author permits him to discuss the pathology of the diseased condition in the most exhaustive fashion and to give all accredited modes of treatment as well as that preferred by himself. But to go into details in a review is quite unnecessary, it is enough to say that the work is from the hand of Nicholas Senn.

D. T. S.

The Diseases of the Stomach. By DR. C. A. EWALD, Extraordinary Professor of Medicine at the University of Berlin, Director of the Augusta Hospital, etc. Translated and edited, with numerous additions from the third German edition, by MORRIS MANGES, A. M., M. D., Assistant Visiting Physician to Mount Sinai Hospital, Lecturer on General Medicine at the New York Polyclinic, etc. Second revised edition. 602 pp. New York: D. Appleton & Company. 1897.

The great progress made in the study of diseases of the stomach, largely stimulated by the appearance of the first edition of this work, has rendered a new edition necessary. In addition to careful editing, which, however, is entirely along lines indicated in the original, a number of new illustrations have been added, so that the present edition contains thirteen figures not found in the original.

In any other branch of medicine there is no single work that in all countries would at once be conceded the primary. In the department of diseases of the stomach, however, there is no land in which Dr. Ewald's work will not be accorded first place.

The only thing to be said to its disfavor is that the profound learning it exhibits is calculated to discourage the beginner with the task before him. Certain it seems to be the author has exhausted the resources of science as it exists at present in this department.

The translation is excellently done, the translator giving the work that liberal touch which enables him to give it the charm of original composition. In its new dress it can not fail to meet with increased favor.

D. T. S.

The Menopause. A Consideration of the Phenomena which Occur to Women at the Close of the Child-bearing Period, with Incidental Allusions to their Relationship to Menstruation, also a Particular Consideration of the Premature (especially the Artificial) Menopause. By ANDREW F. CURRIER, A. B., M. D., New York City. 309 pp. Price, \$2.00. New York: D. Appleton and Company. 1897.

This is an interesting contribution to a subject that occupies a large space in social as well as medical experience. The author has collected the results of an extensive experience and by much diligent inquiry, which even to the general reader must be full of interest. He deprecates the notion so long maintained that the menopause is a period of especial danger, and takes exception to the work of Tilt on that account. Many readers, however, would prefer a larger use of statistics, even if they would require a more judicious use of them than he claims was made by that distinguished author. Withal, Dr. Currier has certainly given us a very readable work.

D. T. S.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and Specially Prepared Articles on Treatment. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain, and Canada. Edited by JUDSON DALAND, M. D. (University of Pennsylvania), Philadelphia; J. MITCHELL BRUCE, M. D., F. R. C. P., London, England, and DAVID W. FINDLAY, M. D., F. R. C. P., Aberdeen, Scotland. Volume II. Seventh Series, 1897. 371 pp. Philadelphia: J. B. Lippincott Company. 1897.

Few situations are apt to elicit more attractive work than that aimed at by the teacher in the lecture room, and especially inspiring are the circumstances of the clinical lecture. It is largely due to this fact no doubt that the current collection of clinical lectures from various medical schools throughout the world have proved so attractive.

The present volume is well calculated to maintain the interest excited by previous series. Among the selections Louisville has the good fortune to contribute four, one each by Drs. John G. Cecil, H. Horace Grant, William L. Rodman, and William H. Wathen, or one tenth of the forty lectures. This is quite creditable considering that there are about a hundred and twenty larger cities.

D. T. S.

Abstracts and Selections.

MODE OF INFECTION IN MALARIAL FEVERS.—Laveran, the claims of whose *Plasmodium* to be considered the specific microbe of malaria have almost entirely superseded those of the bacillus of Tommasi-Crudeli in the opinion of the highest authorities, including even the original workers in this field in Italy, has recently attacked the time-honored beliefs as to the means by which the *materies* or *causa morbi* gains access to the human body. He rejects aerial infection as improbable, considers drinking-water a possible vehicle, though not proven, and is inclined to the view that mosquitoes are the efficient agents in this as in Texas fever, and in the case of *Filaria sanguinis*.

He argues that all the usual precautionary measures, as avoidance of night air, sleeping in upper stories, the lighting of smoky fires by parties compelled to camp out, and even the drainage and drying of the soil, are one and all, though unconsciously, calculated to avert the attacks of gnats and mosquitoes. This seems in the highest degree probable; but it is, we think, impossible to deny the danger of drinking marsh waters in malarious districts without previous boiling, for it is but reasonable to suppose that the plasmodium has its native habitat in the water and damp soil, whence it enters the bodies of gnats, and is by them transplanted into those of man, most animals being protected against the bites of mosquitoes by their hairy or wooly coats and thicker skins. We may, in passing, express our belief that the part played by insects, especially the common fly, in the conveyance of infection is not appreciated as it should be, and that many cases of erysipelas, smallpox, measles, etc., the origin of which can not otherwise be accounted for, might find in this an early explanation.—*The Charlotte Medical Journal*.

HEREDITARY SYPHILIS.—V. Duhring (*Deut. Med. Woch.*, March 25, 1897,) relates his experiences of an investigation carried on in Asia Minor. Healthy children born of syphilitic parents either possess an immunity against syphilis of shorter or longer duration or show parasymphilitic manifestations, such as defective development, malformation, predisposition to infective processes, such as tuberculosis, etc., or develop about puberty the syphilitic lesions known as late genuine hereditary syphilis. In the author's investigations there were some marked exceptions to this immunity against syphilis. This immunity is known not to be permanent, but in some of his cases quite small children born of syphilitic parents, or with obvious traces of their syphilitic origin, have shown signs of acquired syphilis. In a second set of cases there has been proof of hereditary

syphilis in the third generation. The lessened malignancy of syphilis among most peoples shows that a certain degree of immunity has been extended to more distant generations. Communities into which syphilis has been more recently introduced are affected with a more malignant form of the disease, as witnessed by the severity of the symptoms as well as by the frequency of tertiary manifestations; and this is the case in Asia Minor. In his investigations the author was often able to see three generations of a family. He gives details of four cases of recently-acquired syphilis in children born of syphilitic parents. In one case both husband and wife had lost the uvula, and the wife also had a serpiginous rupial eruption on the breast. A daughter, aged twenty, had a gumma of the tongue, and her child had a natiform skull and characteristic teeth. A son had a large gumma in the posterior pharyngeal wall. The youngest child of the original couple, aged three years, showed condylomata about the mouth and anus; it had been suckled for one year and a half. Five cases of hereditary syphilis in the third generation are also recorded. In malignant syphilis tertiary manifestations are often seen in the early stages of the disease; that is, along with a severe infection there is pronounced intoxication. This explains how tertiary syphilis may appear to be infective. The appearance of hereditary syphilis in the third generation is due to malignancy. The view that the course of syphilis is dependent upon the origin of the infection deserves further investigation when the heredity of tertiary syphilis and the transmission of a syphilis to a third generation are considered.—*British Medical Journal*.

CHANGES IN MILK BY BOILING.—Kerr, in the *British Medical Journal*, says: There are reasons for supposing that when fresh milk is ingested the living cells are at once absorbed without any process of digestion, and enter the blood-stream and are utilized in building up the tissues. The casein of the milk is digested in the usual way of other albuminoids by the gastric juice and absorbed as peptone. There is also absorption of serum albumin by osmosis.

The chemical result of boiling milk is to kill all the living cells and to coagulate all the albuminoid constituents. Milk after boiling is thicker than it was before. The physiological results are that all the constituents of the milk must be digested before it can be absorbed into the system; therefore there is a distinct loss of utility in the milk, because the living cells of fresh milk do not enter into the circulation direct as living protoplasm, and build up the tissues direct, as they would do in fresh unboiled milk.

In practice it has been noticed that there is a very distinctly appreciable lowered vitality in infants which are fed on boiled milk. The process of absorption is more delayed, and the quantity of milk required is distinctly larger for the same amount of growth and nourishment of the child than is the case when fresh milk is used.—*The Charlotte Medical Journal*.

VASOL AND IODOVASOL.—According to a writer in the *Pharmaceutische Zeitung*, 1897, and the *Répertoire de pharmacie*, 1897 (*Journal de médecine de Paris*, July 4th,) vasol is a product which is analogous to vasogen and to other products which are said to be capable of being used as bases in the preparation of ointments; these products do not undergo any alteration, and iodovasol has this same valuable quality. It is prepared in the following manner: An excess of oleic acid is treated with chloride of iodine, and an oleaginous substance is obtained; this is first subjected to the action of water, then to that of a solution of sodium hyposulphite, then again to that of water. Finally, the water is completely separated by shaking up with sodium sulphate which has been dehydrated by calcination; the dry isolated product is mixed in a given proportion with yellow vaseline and a little absolute alcohol, then subjected to a current of ammonia gas, which saturates the oleic acid. In this way a clear brown liquid is obtained which contains seven per cent of iodine and has a weak odor of ammonia. When it is shaken with two parts of water it forms a white emulsion which lasts for an hour. Iodovasol becomes solidified by cold and returns to its liquid condition at an ordinary temperature. When it is heated it sets free its ammonia and loses its emulsive properties, but regains them by fresh saturation with ammonia gas. The preservation of iodovasol requires the absence of all moisture; this may easily be fulfilled, for the product is not hygroscopic. It suffices to employ well-dried and well-corked bottles.—*New York Medical Journal*.

MURMUR HEARD OVER THE GASTRIC AREA.—Modigliano (*La Clin. Mod.*, February 10, 1896,) reports the case of an emaciated woman, aged sixty, in whom one could hear a loud systolic *bruit* over the gastric area. The heart sounds were healthy, and no *bruit* could be detected over the cardiac area. The gastric *bruit* was loudest to the left of the middle line and during fasting. When the stomach was full it almost disappeared. It could be heard without exercising any pressure by the stethoscope. No new growth or other disease could be detected. Federici has described a similar *bruit* in connection with cancer of the stomach, and *bruits* over the spleen and liver without any cardiac murmurs have recently been described. At the necropsy the stomach was found extensively adherent to the colon and posterior wall of the abdomen, from old peritonitis. It could with difficulty be moved. There was no stenosis of its orifices, nor alteration of its parietes. The heart was normal, and there was no growth in the abdomen. The patient died of inanition. The author supposes that the *bruit* was due to some compression of vessels by the bands of adhesion, and its absence when the stomach was full was owing to the difficulty of conduction of the sound. Evidently this *bruit* is not pathognomonic of cancer.—*British Medical Journal*.

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"*NEC TENUI PENNĀ.*"

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D. W. YANDELL, M. D., LL.D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

A Journal of Medicine and Surgery, published every other Saturday. Price, \$3 per year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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THE AMERICAN JOURNAL OF PHYSIOLOGY.

No branch of medical science, operative surgery and pathogenic bacteriology not excepted, can score a more rapid advance with greater length of stride than physiology. Nor can it be claimed that any branch of science marches more directly and stoutly to the goal which is the dream of the medical optimist, a scientific and exact therapy, with the rout of empiricism and quackery, and the relief of the untold suffering entailed upon man by prolonged illness.

The contributions to physiology in America have in the last decade successfully rivaled, if indeed they have not distanced, those of European workers, and it is important that the contributors should no longer be constrained to publish their researches in foreign countries, and often in foreign languages.

Therefore, to meet the needs of investigators in physiology, physiological chemistry, physiological pharmacology, bio-chemistry, and certain other branches of biology, a special journal will be published, the first number appearing in January, 1898.

The following from the prospectus states the object and aims of the journal:

The American Journal of Physiology, as the new publication will be called, will contain in each volume about five hundred pages, divided into parts or numbers, to be issued whenever material is received. It is

expected that not more than one volume a year will be printed. The Journal will be edited by H. P. Bowditch, M. D., Boston; R. H. Chittenden, M. D., New Haven; W. H. Howell, M. D., Baltimore; F. S. Lee, M. D., New York; Jacques Loeb, M. D., Chicago; W. P. Lombard, M. D., Ann Arbor; and W. T. Porter, M. D., Boston.

It is not to be supposed that a journal devoted solely to the publication of original researches in physiology will ever do more than pay for its paper and printing, and it is probable that some years must pass before the new enterprise will cease to be a financial burden on a small number of investigators. Yet the need of such a publication is undoubted. The aid of all friends of learning is asked until the journal shall be established on a self-supporting basis. The subscription price, which is five dollars per volume, should be sent to W. T. Porter, M. D., 688 Boylston Street, Boston, Massachusetts.

It is to be hoped that all lovers of medical progress will give this journal the cordial reception and liberal support which it most certainly deserves. That it will be worthy of the cause and of the country the names of the eminent physiologists above printed are a sufficient warrant.

Moreover, it is clear that a vigorously conducted journal of original physiological research on American soil will exert a powerful influence in preserving what too many short-sighted philanthropists are threatening to take from us, the privilege of animal experimentation, which must be kept inviolable if there is to be any substantial advancement in medical science.

Notes and Queries.

INTRATRACHEAL MEDICATION has been extensively tried by numerous observers. Some physicians have been fully satisfied with the results; others, however, have found that not only does this method of applying drugs to the respiratory apparatus cause considerable discomfort to the patient, but no better results are obtained than when the drugs are given in the usual way by the mouth. These remarks, of course, do not apply to laryngeal medication. In the *Journal of the American Medical Association* of June 26th a paper appears by Dr. J. A. Thompson, of Cincinnati, detailing the results of his experience of tracheal injections, which has been very large, and his conclusions are decidedly favorable to that mode of treatment. He considers that there are several reasons for the slow growth of this manner of treatment in professional favor, the principal one being that few physicians are sufficiently expert in the examination and treatment of the upper air-passages to employ it. Possibly there is some truth in this statement, and it may account in some measure for the discomfort experienced by the patients after an injection has been administered; if properly given very little, if any, inconvenience is experienced. Dr. Thompson claims for this method of treatment several advantages. In the first place, he says we get the direct local action of the medicines on the diseased areas, and he instances bronchiectasis as being particularly suitable for tracheal injections. He is of opinion that "no medicine given by the mouth will prevent the decomposition of the secretions in the dilated bronchi; the odor and the absorption of septic material from them can not be controlled. A few tracheal injections will usually disinfect the cavities so that the odor disappears." With these remarks we agree; but whether this principle of local action can be extended beyond dilated bronchi is doubtful. If a large tuberculous cavity communicates with a bronchus, it is possible that a tracheal injection of guaiacol might prove beneficial; but that the drug acts locally on the lung tissue itself, especially at the apices, has by no means been proved.

Another point brought forward by Dr. Thompson is well worthy of consideration. Medicines used by tracheal injections are not changed by passing through the digestive organs into unknown compounds, and for this reason we can be more certain of their action. "No one would think of treating a tuberculous laryngitis by internal medication alone. There is just as much reason for applying medicines of known beneficial local action directly to the lungs as there is for using them in the larynx." The weak point in this suggestion is that we can not get at the diseased portions of the lungs as we can at the larynx, but at the same time if guaiacol has a

local action on tuberculous deposits, if the injection is well tolerated, inspiratory efforts may carry the drug some little distance into the lung, some of it may be absorbed by the parenchyma of the lung, and so the desired effect be produced. Dr. Thompson also points out that when medicines are injected directly into the trachea they have no deleterious effect on the organs of digestion. Guaiacol and similar preparations frequently produce ill effects when taken by the mouth, and have to be discontinued; so also various expectorants, such as are used in acute and subacute catarrhal diseases, act injuriously on the stomach and intestine. The name of one class, nauseating expectorants, testifies to the universal recognition of this fact.

The diseases most suitable for this form of treatment, according to this writer, are pulmonary tuberculosis, pulmonary syphilis, chronic bronchitis, inflammation of the trachea, asthma, and bronchiectasis. Tracheal injections have been most extensively tried in pulmonary tuberculosis and with varying success by different observers. Dr. Thompson speaks very highly of this method in chronic bronchitis. He believes "there is no comparison between the two methods of treatment. The results are so much more rapid and satisfactory by intratracheal medication that no patient who has once been given this treatment is ever willing to continue internal medication." The most serviceable solutions are menthol (two per cent), guaiacol (one per cent), creosote (one per cent), and camphor (from two to three per cent). The vehicle used should be one of the light petroleum oils or olive oil. The method will doubtless be given an extended trial, and the experiences of other physicians will be awaited with interest.—*Lancet*.

THE EMPLOYMENT OF GLOVES IN SURGERY.—For some time past Dr. J. Mikulicz, who is Professor of Surgery in the Faculty of Medicine at Breslau, has been in the habit of wearing gloves while performing most of his operations, and especially when engaged in laparotomy. If, however, the intervention is connected with regions that are specially exposed to infection—such, for example, as the rectum, the urethra, or the buccal cavity—he does not cover his hands, holding that gloves under such circumstances could only favor contamination by helping to convey noxious germs from the diseased parts to those still remaining healthy. Unlike Dr. Zoge von Manteuffel, Dr. Mikulicz does not make use of india-rubber gloves, as he finds them embarrassing, but employs the ordinary thread article, which can be readily washed and sterilized under steam. All the assistants and attendants have to wear gloves like the surgeon, but, as thread gloves are of course far from impermeable, the wearers are required before putting them on to disinfect their hands by means of alcohol and corrosive sublimate. As a rule a single pair of gloves suffices for a short operation, but when the intervention is of longer duration two or more pairs are used in succession. As an additional precaution Dr. Mikulicz likewise dons a muslin mask when about to operate; it is suspended from his calotte, and covers his nose,

mouth, and beard in such a way that neither speech nor respiration is interfered with, while the wearer can even cough or sneeze without any risk to the patient. According to a French medical journal Dr. Mikulicz has obtained very satisfactory results since he adopted the above-mentioned method of procedure. Formerly in his practice operation wounds used frequently to become infected, while suppuration around suture points was of constant occurrence, but now these disheartening complications never by any chance show themselves. He consequently looks upon gloves as an unfailing remedy for the greatest defect of modern aseptic surgery, to wit, the insufficient disinfection of the hands of the operator. The above-quoted authority further states that Dr. Küstner, Professor of Obstetrics at Breslau, wears thread gloves in all his laparotomies, and that Professor Trendelenburg, of Leipzig, and his assistant, Dr. G. Perthes, both make use of long gloves of fine silk reaching to their elbows.—*Ibid.*

CHYLIFORM ASCITES AND ATROPHIC HEPATIC CIRRHOSIS.—Merklen (*Sem. Med.*, May 12, 1897.) reports a case in which atrophic cirrhosis and chyliform ascites coexisted. The patient, a woman aged sixty-one, in December, 1896, fell on her abdomen and wounded her forehead. A fortnight later she noticed that her abdomen was swelling. Anorexia, diarrhea, and edema of the legs followed, and she entered the hospital on February 2d, when there was anasarca reaching to the scapulæ and extensive ascites with double pleural effusion, but with no enlarged superficial abdominal veins. No diagnosis was made. Paracentesis abdominis was performed, and 19¼ pints of a chyliform liquid removed. It was then found that the liver was small, that the spleen was large, and that there was no abdominal tumor. Merklen, thinking that chyliform ascites was found chiefly in peritoneal cancer and tuberculosis, made a provisional diagnosis of tuberculosis of the peritoneum. The patient died very emaciated, with a sacral bedsore and cerebral symptoms, hardly six weeks after the ascites began. *Post-mortem* the liver weighed 32½ oz.; it was "hob-nailed," and the hepatic cells were very fatty. The spleen weighed a little over 11 oz. Chyliform liquid was present in the abdomen and left pleura. All other organs appeared healthy. This combination of chylous ascites with hepatic cirrhosis is very rare. As regards the composition of the fluid, true chyliform effusions must be distinguished from those which are milky but non-chylous. The milkiness in the latter is caused by granules of globulin and nucleo-albumin, and the percentage of fat is no more than in ordinary ascites. The author was wrong in drawing conclusions as to the cause, since it may occur in many diverse conditions. Thus Letulle found the following lesions among twenty-three cases: Simple peritonitis once; tuberculosis of the peritoneum and glands seven times; cirrhosis of the liver, three; abdominal cancer, five; syphilis of the liver, one; congested cardiac liver, six times. A history of traumatism has only once before this been recorded, where chyliform pleural effusion followed

being run over by a carriage. The rapid course the disease ran is also exceptional, since cirrhosis usually lasts for months or even a year. Hanot, however, has described a form of hepatic cirrhosis corresponding clinically to this. Its first symptom is ascites rapidly passing on to general anasarca, and death follows in from two to six months with all the symptoms described under the name of "acholia." According to him, the cause of this rapid evolution is an early profound fatty degeneration of the hepatic cells, which was present in this case also, resembling that of phosphorus poisoning. Possibly in this case an infection took place through the frontal wound and caused at once the fatty degeneration of the liver and the chyliform ascites.—*British Medical Journal*.

ACUTE PNEUMOCOCCUS INFECTION.—Dr. W. R. Townsend describes in the New York Polyclinic an unusual case of bacterial infection, the patient being a girl, six years of age, who required to have a tenotomy performed, and was consequently admitted to the Hospital for the Relief of the Ruptured and Crippled. At the time of admission she was otherwise in very good health, but a few days afterward she suffered from abdominal pain and vomiting, her temperature at the same time rising to 104.2° F. Her throat was congested, but showed no exudation, and bacteriological examination yielded no result. She had a slight convulsion twenty-four hours after the commencement of the symptoms, and six hours later she died. A *post-mortem* examination was made fourteen hours after death, the appearances noted being as follows: The body was fairly well nourished. The brain was normal, but the pia mater was congested. Both lower lobes of the lungs were intensely congested and edematous, the bronchi contained frothy mucus, and the lining membrane was reddened. The spleen was congested and soft. The kidneys were normal in size, their capsules were adherent in several places, the cortex was thickened, and the markings were very indistinct. Bacteriological examination showed a general pneumococcus infection complicated by a streptococcus infection of the blood of the lungs and heart. The brain contained pneumococci. The blood in the heart, the lower lobes of both lungs, the spleen, and both kidneys contained pneumococci and streptococci. The case is a highly interesting one, and is moreover a notable example of the value of bacteriology in diagnosis.—*Lancet*.

A STUDY OF THE BLOOD IN RACHITIS.—Dr. J. Lovett Morse, in the Boston Medical and Surgical Journal, feels justified in drawing the following conclusions from results obtained in twenty cases of his own, together with those obtained by other observers. Most cases of rickets are accompanied by anemia. This anemia may be of any form or of any grade of severity. The severity of the anemia varies in a general way with the severity of the process. The most common form is that in which the number of red blood-corpuscles is normal, or nearly so, and the percentage

of hemoglobin is both relatively and absolutely diminished. The anemia may or may not be accompanied by leucocytosis. Leucocytosis occurs more frequently in the cases with splenic tumor than in those without. It may be due to an increase in any or all of the varieties of white corpuscles. The specific gravity varies with the amount of hemoglobin. Finally, there is no form of anemia found in rachitis which may not be found in any other condition, and no form of anemia found in other conditions which may not be found in rachitis.—*The Charlotte Medical Journal.*

THE DIAGNOSIS OF TUBERCULOSIS BY TUBERCULIN.—Loesch (*Archives des Sci. Biolog. de l'Institut Imper. de Méd. Experiment. a St. Petersburg*, Tome iv, No. 5, 1896,) as a result of numerous experiments on healthy and tuberculous animals, finds that after injection of tuberculin for diagnostic purposes, what he terms the blood reaction is a much more constant and reliable sign of tuberculosis than the usually accepted elevation of temperature. This blood reaction consists in a diminution of the number of white corpuscles in the blood of tuberculous animals, which is most marked two to four hours after the injection of tuberculin. The reaction is never met with in healthy animals. Another difference is that leucocytosis is at its maximum the day after the injection in healthy animals, but on the second day in tuberculous ones. From other experiments, which were, however, too few for positive conclusions to be drawn, he believes that mallein in glanders has the same effect on the white corpuscles as tuberculin in tuberculosis.—*British Medical Journal.*

SMUGGLERS OF PHENACETINE.—Special agents of the United States Treasury Department have recently arrested five or six men on the charge of smuggling phenacetine and trional into the country on steamers landing at Hoboken. The high duties on the drugs and the high prices which they command are given as the special inducements to this evasion of the customs laws.—*Boston Medical and Surgical Journal.*

A QUESTION OF VALUES.—"I suppose," remarked the sarcastic housewife, "that in the course of time ice will be worth as much as diamonds."

"Well," replied the ice man, reflectively, "diamonds are pretty good in their way, but you can not rely on their melting down so as to keep up a steady demand."—*Washington Star.*

BERI-BERI.—It has recently obtained admission to the port of Cork, having been imported by the *Hassell* from the west coast of Africa. Precautions are being taken to prevent the epidemic from spreading to other parts of Ireland.—*Medical and Press Circular.*

THE PLAGUE is reported to be increasing in the Bombay Presidency. Several Europeans have been attacked at Poonah.

Special Notices.

TARTARLITHINE CURES CHRONIC CASES OF RHEUMATISM.—Messrs. McKesson & Robbins: Dear Sirs: Please send me, by mail, four more bottles of Tartarlithine Tablets (100 each).

I will also here state, in justice, that this is the most welcome remedy that has come into my hands since my beginning of the practice of medicine. It has given me, in every case in which I have used it, the happiest kind of results. I have used discretion, perhaps even more than necessary, in its employment; that it be given to patients whom I believed required such a remedy or preparation; but this is just the kind that refuses to yield to the salicylates, etc., old chronic and of gouty diathesis, where there is a tendency to the calcareous deposits, etc. These are undoubtedly, or have been, at least to me, the most troublesome patients in my practice to give what might fairly be termed good results. Now these have been the very kind in which I have been using Tartarlithine with the very happiest results to patients and myself. Many valuable remedies are coming daily to our aid, but this has been the most welcome one to me thus far.

J. G. DENELSBECK, M. D.

Spotswood, N. J., August 3, 1896.

PHYSICIANS make a mistake in not specifically prescribing peculiar diets for patients suffering with ailments which are only amenable to treatment by regulation of the food. Doctors are prone to carelessness in this matter, and often give orders which are only properly carried out by one who knows the component parts of each article of the patient's food. Flours which can be prepared by the household cook for the food of the diabetic and dyspeptic are now put on the market by Farwell & Rhines, the millers of Watertown, N. Y. Their "Diabetic Flour" and "Dyspepsia Flour" are prepared, as their names show, with special reference to these conditions, and merit the attention of physicians. The palatability and value of these and of their Barley Crystals can best be determined by a trial for which the manufacturers will supply the material on request.

SANMETTO IN ENURESIS NOCTURNA.—Mrs. H. M. Robertson, M. D., of Middleport, N. Y., writing, says: "I have just received a letter from the mother of the girl to whom I gave the Sanmetto for nocturnal enuresis, and she assures me that her little girl has no more trouble of that kind, nor has had for some time, so thinks she is cured. I feel sure this case has been cured by Sanmetto, for it was an obstinate case, and did not seem to yield to any thing before I gave her the second bottle of Sanmetto, although I had tried all the usual remedies. I believe in giving credit where it is due."

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THE
AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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No. 10.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

A CASE OF HYDROCELE FOLLOWING THE SUBCUTANEOUS OR KEYES' OPERATION FOR VARICOCELE.

BY J. BRENT PALMER, M. D.

Assistant Genito-Urinary Clinic, University of Louisville.

Mr. R. presented himself to me about April 21st, suffering with an uncured gonorrhea of several months' duration, and while treating this condition I discovered quite a large varicocele on the left side. The testicle was quite small and flabby; and, after explaining to him the danger of possible atrophy of that part if neglected, I suggested that an operation to relieve the condition be performed as soon as his gonorrhea was cured. This he readily consented to, and I discharged him as cured of gonorrhea June 9th. I mention the fact of having treated him every day continuously for gonorrhea for six weeks simply to show that if there had been the slightest hydrocele I would have been certain to have discovered it.

June 18th I performed the Keyes' operation for varicocele, and, as is the usual result, the testicle swelled, became inflamed, and caused quite a little neuralgia. I might add that in the operation I used a silk ligature, thoroughly sterilized, and hadn't even the slight suppuration which almost invariably accompanies the needle puncture. The testicle gradually diminished in size, and three weeks later, when I discharged him as cured, its size was about normal. I saw no more of the patient until August 1st, when he came to my office complaining of pains in the back and across the abdominal region. Fearing that by some mischance the spermatic cord might have been tied off with

the veins, I made a thorough examination, and found it intact. I then diagnosed the pain in the back as lumbago, which was correct, as a few doses of salol afterward proved.

September 19th the patient came to my office to show me, as he said, how soft the medicine I had given him for the pain in his back had caused his left testicle to become. I examined him and found a hydrocele of the left side, where almost three months before I had operated for varicocele.

I report this case because, while I have read a great deal about Keyes' operation and the complications which almost invariably follow it, and while I have performed quite a number of them myself, this is the first case of the kind which has come under my observation.

The questions arise, Were so many veins tied off that collateral circulation was interfered with more or less, and the consequent increase in arterial pressure caused this infiltration of serum into the scrotal cavity, or had the man a congenital tendency to hydrocele, which condition would have occurred sooner or later, whether his varicocele had been operated upon or not?

September 28th I tapped his hydrocele and drew off about one pint of fluid.

October 2d I tapped again and drew off almost one half pint of serum.

The question is, If the ligation of the veins interfered with collateral circulation enough to have caused hydrocele, wouldn't we first have had gangrene?

LOUISVILLE.

SURGERY OF THE FAUCIAL TONSILS.*

BY SAMUEL G. DABNEY, M. D.

Professor of Physiology and Clinical Lecturer on Diseases of the Eye, Ear, Nose, and Throat in the Hospital College of Medicine, etc., Louisville, Ky.

In this paper I wish to briefly consider the indications for and the technique of surgical treatment of the tonsils.

Indications. Two conditions of the tonsils demand operation. The first is that in which by their excessive size they are a source of irritation in the throat and help to cause obstruction to breathing. The second, and in adults more frequent, is that in which, regardless of

* Read before the Louisville Medico-Chirurgical Society, September 24, 1897. For discussion see p. 377.

their size, they are so diseased as to give rise to certain local or remote symptoms.

Formerly the removal of enlarged tonsils to relieve mechanical obstruction to breathing and disease of the ears was often attended with some disappointment. There were two reasons for this: the most important was that adenoid growths, much the more effective cause of obstruction and of aural disease, were overlooked; the other reason lay in the imperfect method of operation. There is some difference of opinion as to what degree of hypertrophy demands operative interference. Holt (*Pediatrics P.*) classifies these cases into (1) tonsils so large that they nearly or quite meet in the middle line—operation imperative; (2) tonsils which project not more than one fourth inch beyond pillars—operation rarely necessary; (3) intermediate cases—operation must depend on the symptoms of the individual case.

This classification, so far as the mere obstructive symptoms go, is fairly good; yet, when we consider the indisputably greater danger to diphtheria induced by any excess of tonsillar tissue and the exceedingly remote dangers of operation in young children, the surgeon would appear warranted, in such cases at least, in always removing any projection of tonsils beyond the faucial pillars.

Holt's classification is subject to another criticism, namely, that tonsils may be greatly hypertrophied and yet not project at all beyond the faucial arch. They have become adherent to the pillars and have drawn them in toward the median line with them.

The second indication for surgical treatment lies in disease of its structure. Such disease may be a hyperplasia, the result of frequent attacks of acute inflammation, or it may be a chronic follicular tonsillitis, or it may be a condition of simple hypertrophy but attended with frequently recurring attacks of acute tonsillitis, or it may be mycosis of the fauces. The hyperplastic tonsil is most common after the age of puberty. The tonsil is hard because of an increase in its connective tissue, and for this reason too there is greater danger of hemorrhage in operations upon it. Chronic follicular inflammation is, as Gleitzman (*American Laryngological Association, 1897,*) says, the most frequently overlooked of all tonsillar affections. This is because it is common in small shrunken tonsils which can not be seen unless the anterior pillar is drawn forward. A blunt hook is a convenient instrument for this purpose. There will then be found, perhaps deep in the

tonsillar recess, a number of crypts, whose exploration with curette or probe will show them to be filled with offensive cheesy masses. My own experience coincides with that of Renner (*Laryngoscope*, September, 1897,) Gleitzman (*op. cit.*) Furet (*Presse Medicale*, May, 1896,) and others, that this condition is sometimes a cause of obstinate pain, annoyance in deglutition, and cough. Furet, indeed, declares that any pathological alteration of the tonsils may induce cough. He attributes it to a plexus of nerves known as the tonsillar plexus, and said by Anderach to consist of the glossopharyngeal, lingual, spinal, and pneumogastric.

I recall the case of a young lady who, having been long troubled with persistent cough, had been much alarmed on account of phthisis, and had spent one winter in Florida on that account, who was entirely relieved by the cure of this form of tonsillar disease. Of course chronic follicular tonsillitis is very common also in enlarged tonsils, but I have dwelt a little on its presence in these conditions of atrophy because in them it is most likely to be overlooked. This form of the disease is much more frequent in adults. Careful examination must always be made for other causes of the symptoms, since it can not be denied that this tonsillar condition sometimes exists without giving rise to any disturbance whatever.

Mycosis of the fauces is, in my experience, usually more marked on the lingual than on the faucial tonsil. Clinically it is recognized by the little pointed, spear-like growths of whitish color projecting from the tonsillar tissue. They are more difficult to detach than the exudates of follicular inflammation, and lack their cheesy consistence, their greenish color, and the offensive odor. The most common symptom of the condition is a rasping irritation of the throat, similar to that of a foreign body. Sometimes the voice is weak.

Technique of Surgical Treatment of the Tonsils. This must vary according as the object to be attained is the removal of an hypertrophied mass or the eradication of deep-seated disease, or both. For the ordinary case of hypertrophied tonsil in persons under the age of puberty and in older persons, provided the tonsil is soft, there is no better instrument than Mathieu's tonsillotome. When the mass is spongy and rather flat I prefer McKenzie's instrument, as in such cases Mathieu's fork sometimes pulls out. It is a mistake to take a small slice off the projecting tonsil and suppose that cicatricial contraction will then sufficiently reduce its size. On the other hand, I do not

believe that dissection and complete extirpation of the organ is often necessary. It is sufficient to reduce it to line a little within the faucial arch. It is well to carry the ring first over the lower end of the tonsil, as it often grows downward, and this portion is apt to be left behind. Not much is accomplished by cocaine in this operation.

It is well to have at hand a saucer of cracked ice and a bottle of McKenzie's tanno-gallic acid mixture. Though I have heard the value of this styptic questioned, my experience with it has been so frequent and so favorable that I commend it highly.

In hypertrophied tonsils subject to recurring attacks of inflammation, some surgeons advise their dissection and complete removal with delicate galvano-cautery points. (Coulter, N. Y. Med. Journal, 1896, Loeb North.) In all cases it is well to look carefully for adhesions of the tonsil to the faucial pillar and to sever them before operating. In hard tonsils in adults excision with the tonsillotome is liable to be followed by very troublesome hemorrhage. In the discussion of this subject by the American Laryngological Association in 1896 the prevailing sentiment was that too much reliance was placed in the guillotine as a means of averting hemorrhage, and, as Dr. Daly, of Pittsburgh, expressed it, "the surgeon who pinned his faith to the statement that there was no danger, would some day meet his Waterloo." Though the chance of fatal hemorrhage is exceedingly remote, troublesome bleeding is not uncommon. To avoid this, the snare, either of cold wire or electro-cautery, or deep cautery incisions have been substituted for the guillotine. In my own practice I most often use the tonsillotome even in these cases. The cold snare I have never tried, but it would seem tedious and rather awkward.

The objection to the electro-cautery snare is the much greater sore throat which it produces and the occasional though infrequent occurrence of sharp secondary hemorrhage. Deep incisions with the electro-cautery, both transverse and horizontal, if repeated, are in time effective in reducing tonsils. I have not found this method of treatment, however, so speedy as has Dr. James E. Logan. In the current number of the Kansas City Medical Index he claims that, by making two or three vertical and the same number of horizontal furrows deep through the tonsil with a galvano-cautery knife heated to cherry heat, he can usually in one, almost always in two operations, remove practically all of the gland. The *modus operandi*, he says, is by cutting off its blood supply.

Where either follicular inflammation or mycosis exists with hypertrophied tonsils, the first step in treatment is the excision of the tonsil as completely as possible. Probably in some of the cases the dissection and entire removal of the gland would be advisable if practicable. I have never tried it.

In the same diseases existing in the small, shrunken, so-called atrophic tonsil we have the choice either of the electro-cautery or punch forceps. Dr. Farlow, of Boston, has devised an instrument of the latter kind, and there are many more or less similar. In my hands they have not been satisfactory. In these small diseased masses of tonsil, often quite concealed by the faucial tonsils unless they are pulled aside, I have found nothing so effective as thoroughly laying open the crypts by deep and long incisions with the galvano-cautery. Frequently a pocket will be found extending well up into the angle of the faucial arch. So marked indeed is this, that Dr. Harrison Allen describes the tonsil as consisting of two portions, a palatal and a faucial division. I have sometimes observed the red zone about the tonsillar region, which Dr. Cline claims is indicative of inflammation in these small concealed tonsils.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, September 24, 1897, the President, Frank C. Wilson, M. D., in the Chair.

Extensive Tuberculous Disease of the Joints. Dr. W. L. Rodman: The patient, Mr. H., presented by me to this Society, had tuberculosis of the right knee joint, both sterno clavicular joints, and of both shoulder joints. Many of you will remember him. At the time we had quite a protracted discussion as to what should be done, especially with the knee joint. The question then was between amputation and an atypical resection. I took the ground that I believed an atypical resection should be carried out; this view was not concurred in by several of the gentlemen present. They thought his constitutional condition was such that resection was rather out of the question, and

*stenographically reported for the Practitioner and News by C. C. Mapes, Louisville, Ky.

advised amputation. After hearing the discussion Mr. H. decided that he would have an atypical resection done in accordance with my own ideas. It was carried out toward the latter part of October or first of November last. The result has been unexceptionally good; he now has quite a movable joint, in fact motion is almost as good as it ever was, and his general condition has improved very much. He weighs at present five pounds more than he did several months ago, and before the exceedingly hot weather through which we have just passed his weight was even greater. At the time I removed the entire internal condyle of the femur, leaving only a slight shell of it there, then made through-and-through drainage, curetted the entire capsule of the joint, and irrigated with a 1-2,000 solution of corrosive sublimate. While there is still some enlargement of the joint there is no pain, and he walks quite well without the aid of a cane or other support. Motion is remarkably good. No one who saw the case at the time expected that we would have other than a stiff joint. One surgeon, a member of the Society, was present at the time the operation was performed, and quite insisted upon amputation, but I did not agree. The internal condyle of the femur was largely destroyed. Material curetted from the joint was submitted to microscopical examination and pronounced tuberculous beyond any question.

In reply to the question as to what general treatment the patient has received: He has been given cod-liver oil rather freely, and latterly I have been giving him mercauro, which seems to act admirably well.

Discussion. Dr. J. M. Williams: I desire to congratulate the doctor upon the beautiful result; it is simply wonderful, and I never saw any thing to compare with it after resection of the knee joint. I have seen several cases, but none in which the result was so favorable. I would like to ask the doctor what was done with the patella at the time of the operation, and what strength of corrosive sublimate was used.

Dr. W. L. Rodman: The resection was an atypical one, and the patella was not disturbed; the curetting was done by going beneath the patella. Nearly the entire internal condyle of the femur was taken away, and the entire capsule of the joint thoroughly curetted. Strength of the corrosive sublimate, as stated in my report, was 1-2,000.

Dr. J. A. Larrabee: It is the most wonderful result that could possibly be expected in motion of the joint, ability to walk without

limping, etc., after resection of the knee joint. Now as to the destruction of the tuberculous processes in other parts of the body: we understand that the patient has tuberculosis of both shoulder joints, also of the clavicles and the scapulæ in addition to the knee joint. I would like to inquire the results in these localities, and what treatment was adopted, and if the general tubercular condition was treated in any manner, or whether improvement in the general tuberculosis, or destruction of the process throughout these five localities, has been the result of surgical interference alone, or whether there has been an arrest of the tuberculous deposits.

Dr. J. M. Ray: Like Dr. Larrabee I would like to inquire how the tuberculous foci in other parts of the body were treated, and what the condition is in the other situations at the present time.

Dr. W. L. Rodman: At the time Mr. H. was shown to the Society I had him stripped, which I do not consider necessary on this occasion, and at that time he had local tuberculosis, not only in the knee but in both shoulder joints, both sterno-clavicular joints and in the left scapula. I removed a large part of the scapula, the entire spino-acromion process. I went into both shoulder joints, curetted them thoroughly, and removed part of the humerus of the left side. I then went into both sterno-clavicular joints and removed the entire articulation on both sides. They have all healed now with one exception. To-day I noticed, it being the first time I have seen the patient for three months, that the left sterno-clavicular joint is discharging slightly. I again opened the joint and applied a strong solution of the chloride of zinc, fifty per cent strength. His condition is very much better than before the operation in every way. There has never been any tuberculosis of the lung so far as I am able to discover, although several members of his family have died of lung trouble. A recent examination shows his lungs to be clear. Tuberculosis has been confined to the joints enumerated, viz., the right knee, both sterno-clavicular joints, both shoulder joints, and posterior part of the left scapula.

Appendicitis; Carcinoma Uteri; Pyosalpinx and Ovarian Abscess.

Dr. L. S. McMurtry: The first specimen is from a case of appendicitis. The case is interesting on account of the severe type of the disease. A gentleman, aged forty-four years, was attending to business as usual on Tuesday during the first week of August. He had not been sick since childhood. Wednesday morning he suffered severe abdominal

pain, and was treated with domestic remedies for colic. Wednesday noon a physician was called and found the man ill; his pulse was rapid, abdomen tender and swelling. I saw him in consultation on Wednesday night. His condition then was one of rapidly spreading peritonitis. The features were pinched; he vomited frequently; the abdomen was distended; the pulse 132; temperature 102°, and he suffered acute pain. The operation was done at 7:30 o'clock Thursday morning. No adhesions whatever; on opening the peritoneum there were flakes of lymph over the intestines, serum in abundance, and every thing indicative of rapidly spreading peritonitis. I found the appendix without any difficulty and removed it. You will observe a perforation in it; in manipulating it the tip of the appendix came off; you will notice it is gangrenous in its distal two thirds. The omentum was infected over quite a large surface. I removed, as you will see, this portion of the omentum in addition to the appendix; irrigated the abdomen with about four gallons of warm salt solution, placed triple gauze drains in the cavity, one going over to the middle line, one up under the liver, and another down into the pelvis. In eight hours his pulse dropped down, and the next morning it was 92, temperature 99.5° F.; bowels moved in response to an enema, and he has gone along making an easy, complete, and perfect recovery.

The second specimen is a uterus which you will notice is the seat of malignant disease. There are so few cases of malignant disease of the uterus that are operable when they reach the surgeon that it is unusual to find a specimen in this condition. The majority of such cases I see are too extensively invaded to justify any operative procedure. The patient is very reluctant to consult a physician about it, and when the diagnosis is made and the condition realized the broad ligaments are usually invaded and proliferation has extended along the lymphatic channels up into the recto-uterine and utero-vesical spaces, so there is nothing promising in an operation. Under those circumstances, when we do operate and the patient recovers from the operation, we really hasten the death of the patient. We open up all the lymphatic channels and facilitate the distribution of the malignant process, so that we get no benefit from the operation. This is one of the cases which promises a good result. Preparatory to the operation I curetted away all the necrotic tissue I could from the cervix, packed it with iodoform gauze, then sewed up the cervix as a protection against septic infection. The operation was performed day before yesterday, and the patient's recovery is assured.

The third specimen is from a case of pyosalpinx and ovarian abscess. The sac on the left ruptured during its removal, the pus spurting upward a distance of two feet. The lower one is intact, and the sausage-shaped tumor is very apparent. It is filled with pus.

This woman gave a history of five years of pelvic inflammation, which was most probably gonorrheal. She had been seen by a number of physicians, and had been treated in a great variety of ways. There was nothing unusual about the case, the operation, or its progress. Glass drainage was used after thorough irrigation; the patient went to bed without shock, and has made an easy, smooth convalescence. The drainage-tube was removed in forty-eight hours, and the incision has healed nicely.



PYOSALPINX WITH OVARIAN ABSCESS.

At the present time there is much discussion as to the proper way to treat these cases. The French operation by vaginal hysterectomy, leaving gauze packing to drain away the contents of these tumors, is advocated by some excellent operators. When the operation is done from above all suppurating tissues are removed, no pockets of pus are overlooked, it is a completed operation. When it is done from below the uterus is removed, gauze packing is relied upon to drain away the contents of these pus sacs, leaving behind necrosed tissue and the sac of the abscess together with numerous adhesions. When done from above the recovery is among the most satisfactory that can obtain from any operation.

I want to add a few more words in regard to the specimen of appendicitis: At a meeting of the Surgical Society a short time ago I presented a paper on the operation for appendicitis, and in that paper I advocated in all cases, where the patient's condition would admit, that the appendix should be removed. There are many operators who

advocate, in suppurative cases where adhesions exist, simply opening the abscess and draining. A proportion of such cases will recover, but in a large proportion there will be secondary attacks. We should apply to the appendix the same principles of surgery that are applied in suppurative salpingitis.

Abdominal surgery grew out of pelvic surgery; it is simply an extension of pelvic surgery. The methods and principles of abdominal surgery have been brought out by pelvic surgery. And in appendicitis, when we do a complete operation, it is but the application there of the same principles that are followed in cases of suppurative salpingitis. Of course there are cases where the patient's condition is such that nothing but incision and drainage will be borne; then it is proper to do a life-saving operation, establish drainage, even if you know at a later time it will be necessary to operate again and remove the appendix. But in all cases where it is possible it is better to remove the appendix at the original operation.

There is one other point in connection with appendicitis that I desire to emphasize: After the operation and during convalescence, especially if constipation is permitted, the patient has paroxysms of fever. This is very deceptive and is likely to mislead one who has not carefully watched the progress of such cases. If you have not separated adhesions and removed the appendix, you are not able to determine with certainty whether local suppuration or systemic causes underlie febrile action when convalescence is arrested or interrupted. But in those cases where you have separated adhesions and removed the appendix you are absolutely sure of your ground. You know there are no pockets of pus left, and if a febrile condition or other systemic trouble arise you are sure you have an extrinsic condition to deal with.

Discussion. Dr. W. L. Rodman: I can only say that while I have always felt, and feel now, that in the majority of instances all that is necessary is to simply open and drain the abscess in cases of appendicitis, I, like Dr. McMurtry, have had latterly two cases which indicated that a complete operation would have been better at the time. One of them I did not see in the first attack. The second case I did see in the first attack, and simply contented myself with opening the abscess and draining. Each of these cases had subsequent attacks, and both have again been operated upon within the last two or three

weeks. I must insist, however, that there will be found a great number of these cases where it would be extremely hazardous to search for the appendix and take it out. I believe in the majority of instances, in fact, that more cases will be saved by simply draining the pus cavities rather than breaking down adhesions which are protective and making a too prolonged search for the appendix. I am ready to grant, however, where the condition of the patient is good, and where search for the appendix is not too prolonged, and where it can be reached without breaking down too many adhesions, that it is not only wise but it is best to take the appendix out. But I am still of the same opinion that I have ever been, that the wisest course in cases of appendicitis is to treat them conservatively; that is, drain the abscess first, and then, if they have other attacks, try and catch them between attacks and then go in and remove the appendix. I believe more cases will be saved in this way. One plan is ideal surgery, the other life-saving surgery.

Dr. Turner Anderson: All the specimens presented by Dr. McMurtry are full of interest; the appendix is particularly so, and he is to be congratulated upon the result, because septic peritonitis usually entails an extremely heavy mortality. The mortality is so high in such cases that it is an especially fortunate termination.

With reference to the case of epithelioma of the cervix, the case was simply taken in time. Dr. McMurtry has covered the whole ground in connection with the desirability of early operation, and if this case had been allowed to go on for a short time longer, involvement of structures contiguous to the uterus would have been so great that an operation would have been impossible *per vaginam*, and if performed by a laparotomy the dissection would have been complicated and might not have accomplished any thing. Ciark, of the Johns Hopkins Hospital, has done much recently in the way of operating in neglected cases of cancer of the uterus. He makes a beautiful dissection; he inserts bougies into the ureters so as to avoid injury, and then follows his dissection until he cleans out every thing. Dr. McMurtry has properly said unless the operation is done early it is not necessary to do it at all; that is about the fact. The only question in the case reported would have been between amputation of the cervix and the complete removal of the uterus. I should suppose however, it was safer in this case to take out the entire uterus than to amputate the cervix high up. The case looks as if it was taken at the beginning,

and possibly the danger would have been less with a very high amputation of the cervix, an operation which is not regarded as particularly dangerous.

Shot Wound of the Intestine: Resection; Death. Dr. Thomas Hunt Stucky: I have here a specimen which is interesting for only one reason. Some time ago a shooting occurred on Main Street, a man being shot in the abdomen. He was taken to the infirmary and a resection of the intestine was made. The only intestinal wounds found were three perforations within two and a half inches. The man died the second day after the shooting occurred. The only point of interest in the specimen which I present is that there are three openings, making six holes, in the intestine within a space of two and a half inches. It shows how the gut must have been twisted upon itself in some curious way by which the bullet could have penetrated at so many different points in this small space.

Discussion. Dr. T. S. Bullock: I saw the operation in this case and it was skillfully and beautifully done. The question of the gut being folded upon itself so as to be penetrated so many times occurred to us all at the time. It was wonderful how so many holes could be made by a single projectile.

Dr. J. M. Williams: I had the pleasure of seeing the operation, and thought that if ever a man had a chance of recovery from a gunshot wound of the intestine, this man had. It was one of the prettiest operations I ever saw performed, and it was done soon after the man received the shot. The fact of there being six perforations within a space of two and a half inches is very remarkable, and something that I can not understand. If all cases of gunshot wound of the intestine were operated upon as early as was this case, the mortality should be markedly reduced; but if not operated upon until three or four hours have elapsed, we all know there is but little hope for recovery.

Dr. T. S. Bullock: I would like to say further in regard to this case, that I never saw a patient under the influence of chloroform look as if death were so imminent as this case. We administered chloroform first, and he became so cyanosed that it was suggested we substitute ether, although the heart's action was good, being slow and full. His face, nails, in fact the whole surface of his body was absolutely cyanotic and remained so for three hours after the operation, like a man *in articulo mortis*, but the pulse remained good throughout the

entire operation, and he rallied after three hours and regained his natural color. I have never seen such an unfavorable condition as regards cyanosis with so little disturbance in the circulation.

Dr. T. H. Stucky: This man's pulse and temperature remained normal up to within two hours of his death. Breathing became labored, he went into a condition of dyspnea similar to that experienced while under the influence of the anesthetic, and never rallied. He was on the operation table within fifty minutes after reception of the injury. He had two actions from the bowels and gas also passed freely after the operation. No *post-mortem* was allowed.

Case of Diphtheria Treated by Antitoxin Injections on Fifth Day.

Dr. W. O. Roberts: I recently had a case of diphtheria which was treated successfully with antitoxin, and report it because of the fact that the membrane had been in the child's throat for five days before antitoxin was used. A little girl, seven years of age, the daughter of a doctor living in Carroll County, Kentucky, was taken with sore throat on Friday night; the next morning her father noticed that one tonsil had a patch of membrane on it as large as his thumb nail. This steadily increased, the child grew weaker and weaker, and I saw it the following Wednesday, when both tonsils were covered with membrane, also the uvula and back in the posterior nares; the child could scarcely swallow; its voice was nearly gone; it could take no nourishment, and notwithstanding the length of time the disease has existed, I thought a trial of antitoxin was advisable, and therefore used it. The child, in a few minutes after the injection was made, felt as though every thing was swimming around; but this soon passed off, and I did not see her again until Friday, two days after the first injection of antitoxin. The membrane had commenced to peel off then, still a great deal of it remained; the child's voice was still gone, but it breathed with more ease. I gave it another injection of antitoxin. From that time on it steadily improved and made a good recovery.

I report the case because the disease had existed so long before antitoxin was used, as I do not believe it is expected to give very much benefit under these circumstances. It is the second case I have seen where antitoxin was used late in the disease. I used the antitoxin manufactured by Mulford & Co. in full strength.

Discussion. Dr. J. A. Larrabee: I would like to supplement Dr. Roberts' report by a similar case. All of us have reason to believe that

the earlier antitoxin is used the more successful it is, which I believe is correct, but I think it would be well to report cases where the success has been late, in order perhaps to forestall that opinion, lest many should not inject it in neglected cases.

In the case I desire to report I had treated the child for acute articular rheumatism, which is a point I wish to emphasize. The child had organic heart disease as a result of the attack of rheumatism, and this was brought up as an objection to antitoxin injections when it suffered from diphtheria. It was taken ill on Thursday night. On Friday it complained of sore throat, but the throat was not inspected. On Saturday the child became worse, and had a dripping from the nose, making a nasal case. On Sunday morning the child was brought to my office, and the first diagnosis of diphtheria was made. Membrane was apparent all over the tonsils and upon the uvula, with nasal obstruction; and, while there was not complete aphonia, the voice was markedly impaired and there was a decided cough. I made preparations to keep the child in town as I did not care to have it return to the house with other children. The mother consented, and I made one injection of antitoxin (Mulford's), and in twelve hours after the injection there was beginning to be, I thought, a visible separation of the membrane without improvement in any other way. The following day the membrane had further separated and a large piece of it came away. That was on Tuesday. This is Friday, and I saw the child this morning, and there is only one little spot of membrane on the uvula. The child has ceased to have any elevation of temperature, the voice has returned, and recovery is assured. On Wednesday the child coughed up a large piece of membrane, after which the voice returned. I think it important to report these late injections of antitoxin to show the effect. I demurred a little about injecting antitoxin so late, and further owing to the heart complications, but there was absolutely no untoward effect from it. I injected the maximum quantity with result as stated.

Dr. S. G. Dabney: We throat men often see cases of diphtheria. There is no question that antitoxin has come to stay, and it is one of the greatest medical discoveries of recent years. I paid a visit to the Willard-Parker Hospital while in New York a few weeks ago, and saw something there of their methods of treatment. At that time there were fewer cases of diphtheria in the wards than usual, there being only seventeen the day I was there. I found there was very little change in the management of diphtheria cases since I visited the insti-

tution two years before. They told me in regard to the dosage of antitoxin that they used now 1,500 units; some time ago they for a time used 2,500 units, but found this quantity unnecessary and had reduced the amount to 1,500 units as an average dose. Dr. Dillon Brown makes a good point in regard to antitoxin; he was not very enthusiastic about it when first introduced. He was then and is still a strong advocate of calomel fumigations. Now he is of the opinion that antitoxin in the laryngeal form of the disease is almost a specific. His explanation of this fact is probably true, although we can not call it a specific in all cases. His explanation is that in the laryngeal form we are less apt to have the streptococcus infection, on which you know antitoxin has no effect; therefore in the laryngeal cases more may be expected from antitoxin injections than where we have other infectious germs associated with diphtheria. I noticed also in the Willard-Parker they are still carrying out the treatment I saw there two years before, and which many of us use here, that is, irrigations. They use no mopping or spraying; they use no germicides whatever in the throat or nose; they irrigate the nose and throat with a normal saline solution, and that is all they do. They have a fountain syringe hung above the child's head, attach a tube to it, and put this in the throat and wash it out thoroughly. The same method of treatment is used in the nose, except they sometimes use even a force syringe where the membrane in the nose is very thick, and there is difficulty in getting the fluid through it for cleansing purposes; they then force the fluid through with a strong piston syringe. As to internal medication they rely very much upon what all of us do, viz., strychnine and whisky. They seldom give iron in the early stages of the disease. This is the general plan of treatment that the most of us have followed for the past few years.

In Dr. Roberts' case the explanation of the good effect of the antitoxin is not so much in relieving the pharyngeal element of the disease, perhaps, as in arresting any tendency to involvement of the larynx. From the loss of voice and other conditions as stated, it would seem probable that without antitoxin injections the child would have had laryngeal diphtheria, which was nipped in the bud by the use of antitoxin. I have seen it used as late as a week after the beginning of the disease with good results. The general impression is that it does not do much good after the fourth day. I believe in Dr. Roberts' case it acted by preventing a further extension of the disease to the larynx.

Dr. C. Skinner: I would like to add two cases. A little child was visiting in the country, and had suffered for a week with some throat trouble, so I was told. The child was brought back to the city, and I saw it. In examining the throat I found it filled with membrane and at once pronounced the case one of diphtheria. They said the throat had been in that condition for a week, which puzzled me not a little. It had some fever. Dr. Ray saw the case and confirmed my diagnosis. I immediately injected 1,000 units of antitoxin, and the child made a quick and easy recovery. That was last fall. In March I saw in Mount Sterling a child with diphtheria, the third case in the same family; the two previous cases had died. This child had been sick a week when I saw it. I gave it one injection of 1,500 units, and two days thereafter I found it necessary to give another injection. That child made a good recovery, but had paralysis and loss of voice for three months; there was also some sloughing of the palate. Antitoxin was used in this case eight days after the onset of the disease.

The essay was read by Dr. S. G. Dabney; subject, "Surgery of the Faucial Tonsils." [See paper, p. 362.]

Discussion. Dr. J. A. Larrabee: The point we are often called upon to decide in the case of children, three, five, and six years of age, is whether there is a necessity for this operation when the tonsils impinge upon the respiratory tract. We are confronted with the generally accepted belief that with growth and development the enlargement of the tonsils will subside at the age of puberty. I believe there is a great deal of mischief done by encroachment of the tonsils as regards respired air, serious chest mischief occurring from an occlusion of air which is sufficient to produce snoring. The non-expiration of air which keeps the upper part of the chest more or less filled is sufficient in the young child to produce damage and deformity. An indication for removal is when the tonsils impinge sufficiently to give rise to snoring in sleep. In removing enlarged tonsils in children I have used an instrument constructed a little differently from the one described by Dr. Dabney, and I like it very much. I have made a rough pencil drawing of the instrument, which you will probably recognize. When this is slipped over the tonsil it requires an assistant to press on the neck at the time, thus forcing the tonsil well into the instrument, which is then used as scissors, clipping off as much as you wish, and with this instrument there is no danger of dropping a piece

of the tonsil back into the throat. By an assistant pressing the tonsil in as far as you wish, you can then take off just as much as you please. I like this plan much better than the guillotine, especially in children. I have used the guillotine, but many times it will not work properly.

Dr. J. M. Ray: I see a great many cases of throat troubles in which enlarged tonsils seem to be the cause of the difficulty. We all know that in the ideal throat of the adult the tonsils are represented simply by a mass of glandular tissue, not projecting beyond the pillar of the palate. I think that frequently, when the tonsils are not excessively enlarged in children, operative interference is not indicated. The rule that I follow generally is the influence enlarged tonsils have on breathing, and the history of relapsing attacks of sore throat. It has been my experience that in nearly all cases of excessively enlarged faucial tonsils there also exists adenoid growths. At one time the operation for removal of the tonsils received a great deal of adverse criticism because of the fact that the symptoms were not relieved when the faucial tonsils were removed, the fact being that there were present adenoid growths which gave rise to a preponderance of the disagreeable symptoms.

With reference to the proper operative procedure in these cases it has been my custom to remove the tonsil with the guillotine. Some times I use the Mathieu, sometimes the old McKenzie instrument. When the McKenzie instrument is used it is well to follow out the directions given by Dr. Larrabee, that is, have an assistant stand behind the patient and force the tonsil well inward by pressure. I watched McKenzie perform operations of this character for four months, and he always had an assistant to stand behind the patient and press firmly behind the jaw. He used his own instrument, and seemed to get the tonsil out about as well as can be done with the Mathieu guillotine. I frequently use the Mathieu guillotine, but you have to watch it carefully to see that it does not bend and run into the tonsil. I have seen the uvula cut into; have seen the fork slip through the tonsil and break out; on the other hand, in using the McKenzie instrument you have to get somebody to press firmly behind the jaw, and in this way the tonsil is not nearly so apt to slip out of the grasp of the instrument.

In regard to the treatment of diseased tonsil in the adult, I agree that if they are very large they should be removed in the same way as we would do in the child, though I never operate upon an adult tonsil without a certain amount of misgiving. While I have never had a fatal

case, I have had several exceedingly annoying experiences, and this is not only true of the guillotine operation but also with operation by means of the galvano-cautery. I had a very disagreeable experience this summer: A young man came to me from Central Kentucky who had a pair of ragged, rough tonsils, and when I first looked at them I thought I would simply slip them off with the guillotine. After thinking over the matter for a while I came to the conclusion that I had better cut them off with the galvano-cautery. I used the galvano-cautery. And, by the way, the best snare I have found for use with the galvano-cautery about the tonsil is that known as Gradle's snare. It seems to cut around the tonsil better, and altogether it seems to work very much better than any instrument I have ever tried. I removed this young man's tonsils on Friday, and advised him to stay in town, which he did, until Monday. On Monday his throat was quite sore, but he had no other trouble and went home. He showed up at my office on Wednesday morning, stating that all Tuesday night he had spit blood. I sent him to the home of a friend here in town and told him to go to bed, that I would see him that afternoon. I had him in the mean time to hold ice in his mouth. I saw him in the afternoon, and he said he had been bleeding a little all day. That night at midnight I was again called to see him, and the tonsils were still bleeding. This was on Wednesday night. On examination I found there was a little slough coming away, and a small artery was found spurting from high up between the anterior and posterior pillar of the palate. He was very gaggy, and every time I attempted to make any application the most disagreeable effects were produced. I worked a long time before I succeeded in controlling the hemorrhage. Thursday afternoon I was again sent for, and he was still bleeding. Meantime he had lost so much blood that he was beginning to show the effects of it. He had begun to get dizzy and could not sit up without feeling light-headed. I remained with him for several hours, Thursday afternoon, and finally succeeded in controlling the hemorrhage by the application of ferropyrine. The bleeding vessel could not be caught. In a few days the patient was as well as usual, but I record it as an exceedingly disagreeable experience had from the use of the galvano-cautery in the removal of enlarged tonsils, and I have come to the conclusion that the galvano-cautery is not always sure of preventing hemorrhage.

There can be no doubt that a great many throat troubles are due to chronic inflammation in atrophied tonsils. We frequently find cases

in which the anterior pillar of the palate seems to have become adherent to the tonsil, and often you can pass a probe under it. I have seen cases in which you could remove a quantity of cheesy material which had collected there; again the follicle of the tonsil becomes filled with this cheesy material, then the opening seems to become occluded and they will have relapsing attacks of inflammation. The best plan of treatment in such cases is to lay the tonsil open, clean out the material thoroughly with a curette and apply chromic acid.

I have used the galvano-cautery frequently, but it makes the throat very sore, especially where you make deep incisions in the tonsil. I also received a reprint of the article referred to by Dr. Dabney, written by a gentleman in Kansas City, in which he claims to make use of the deep incisions. It has been my experience that this treatment makes the throat exceedingly sore, and it does not shrink a large tonsil in one sitting, nor in two either.

Dr. H. Leavell (present by invitation): I have had occasion frequently to remove enlarged tonsils at the Hospital College of Medicine clinic, through the courtesy of Dr. Dabney, and have always used the Mathieu tonsillotome. It acts very nicely excepting where the pillar of the fauces and the tonsil are pushed forward to the median line, then the prong is apt to get into the pillar and you will have some difficulty. Ordinarily I think the prong just going through the mucous membrane will lift the tonsil up sufficiently to cut off a considerable slice without any pressure on the outside.

Dr. J. A. Larrabee: What is the fatality of operations upon the tonsil, if any?

Dr. J. G. Cecil: I wish in closing that Dr. Dabney would make some reference as to the permanent effect upon the voice of removal of enlarged tonsils. It is a question which is often asked, especially by singers.

Dr. S. G. Dabney: I will reply to Dr. Cecil first: There can be no question whatever that the removal of enlarged tonsils improves the voice. This question is very frequently asked me. One lady of this city who is a singer, I believe a patient of Dr. Cecil's, has enlarged tonsils which she has never been persuaded to have removed, fearing it would injure her voice. I remember showing her that some of the most famous singers of the world had had their tonsils removed, among them Patti. Both from the experience of these distinguished singers and the every day experience of us all, there can be no doubt

thar the removal of enlarged tonsils has only a good effect upon the voice.

I can fully agree with Doctors Larrabee and Ray as to the advisability of external pressure by an assistant when the McKenzie instrument is used. As Dr. Leavell has stated, when the Mathieu tonsillotome is used the fork attached to it lifts the tonsil up sufficiently so that we may make a very satisfactory excision without any pressure from without. As mentioned in my paper, in the removal of soft, spongy tonsils the Mathieu instrument is sometimes unsatisfactory, the fork pulls out and it skirts over the surface of the tonsil. In such cases, as I stated, I am in the habit of using the McKenzie instrument.

I am glad to hear Dr. Ray agree with the statement made in the paper, that the unsatisfactory results sometimes ensuing after tonsillotomy are due to the existence of adenoid growths. Unquestionably adenoid growths are the most common cause of the ear symptoms we see in throat and nose troubles, and these are far more effective agents in obstructed breathing than the tonsils themselves, but up to comparatively recent times they were not operated upon at all.

Like Dr. Ray, I never operate upon the tonsils of a grown person without a little misgiving. I operated to-day on a young man, twenty-five years of age, having a hard, fibrous enlarged tonsil. I requested him to remain in the infirmary for a few days. I would not ordinarily do that with a patient living in satisfactory sanitary surroundings, but I understood that he lived in the dormitory of one of the large theological seminaries here, and I was quite certain that the hygienic surroundings there would not be such as to insure good results after such an operation. Moreover, in doing such an operation in the infirmary and having the patient remain there for a few days, we have the satisfaction of knowing that the case is properly looked after by trained nurses.

Like Dr. Ray, and as mentioned in my paper, I am not an ardent advocate of the galvano-cautery as a means of averting hemorrhage. I have seen secondary hemorrhage after its use; this does not occur frequently, but it sometimes happens and is a very troublesome feature.

Adhesion of the tonsils to the pillars is a very common condition, and one we ought to look for before operating, because we otherwise will not enucleate enough of it, and we will leave behind a bag or pocket about the crypts which will retain the secretions there and be a source of injury.

Some one has asked the question as to what effect, if any, removal of the tonsils has upon the virility of the patient in future years: This is an old superstition which probably originated in the lay mind. I often have the question asked me by patients. I remember recently a lady brought her little boy to me with enlarged tonsils, and before consenting to the operation for their removal she asked me if it would have any effect upon his future powers of reproduction, etc. The idea is so ridiculous, and based as it is simply upon superstition, it hardly merits consideration.

In answer to Dr. Larrabee's question, I believe there are three cases on record where fatal hemorrhage has followed removal of the tonsils.

Case of Empyema. Dr. J. A. Larrabee: I recently saw a case of empyema in an infant two years of age. The condition was so apparent that I had no hesitancy in making the diagnosis even without an exploration, and so urgent were the symptoms, the interference with circulation was so great, and respiratory difficulties threatened immediate death, that in the presence of the family doctor I said: "Doctor, I believe you ought to relieve this child now, and do it as speedily as possible." He replied, "All right, let us proceed at once." I had a large Prave syringe with me, and determined to make an immediate puncture in the usual situation. The child was placed upon its mother's shoulder in a rocking-chair, and the needle was introduced, and I drew out a syringe full of pus. As I was preparing to enlarge the opening to make free drainage, the child expired. It was an exceedingly unfortunate circumstance, and I want to inquire of the members of this Society if it is a usual occurrence. I admit that perhaps the child should have been put in the prone position before the puncture was made. However, the child was in a moribund condition at the time. I had no difficulty in introducing the syringe through the intercostal space at the usual site, and had withdrawn a syringe full of pus and was preparing to enlarge the opening to get free drainage when the child expired. Death took place as soon as the syringe was withdrawn.

Discussion. Dr. J. G. Cecil: The case is a very unfortunate one, but I do not believe the withdrawal of the pus or the puncture had any thing to do with the child's death.

Ophthalmia Purulenta Adultorum. Dr. J. M. Ray: We have a number of times had under discussion in this Society the subject of purulent inflammations of the conjunctiva that follow in the newborn, also those that occur in the adult as a result of gonorrheal infection. The case that I now desire to report I saw in consultation. For three days purulent conjunctival inflammation, the result of gonorrheal infection, had been present. The history of the case was plainly one of gonorrheal inoculation. One day the first eye became infected, the next day the second eye. The patient was seen on Thursday night by Dr. Pusey, who instituted prompt and adequate treatment. On Friday there was a great deal of swelling of the lids, considerable chemosis of the conjunctiva, and quite a free flow of pus from both eyes. On Saturday a beginning haze of the lower margin of the cornea of the right eye was noticed. On Sunday a similar condition became apparent in the left eye. I saw the case in consultation on Monday morning. At that time, in the right eye, the infiltration and hazy condition involved the lower third of the cornea. In the other eye there was a semilunar ring of ulceration and a considerable steamingness and haziness extending from that. The case had been treated from the start according to the well-known plans of management that we all recognize and commend, viz., the application of ice poultices to combat the swelling of the lids; nitrate of silver had been used, the eye had been washed every fifteen minutes to a half hour. This treatment had been faithfully carried out. The patient had been sent to the infirmary, and the treatment had been assiduously applied. Notwithstanding all this the case looked exceedingly grave, and the corneal involvement had occurred so early in the infection that it looked as if there was very little chance of saving the man's eyes. The early and rapid corneal involvement seemed to point to an exceedingly rapid destruction of the eye.

When I saw the case it occurred to me, that as all recognized treatment had been thoroughly carried out, that if we were going to attempt to save the man's sight heroic measures must be instituted at once. So I advised in the consultation that the man be put under the influence of chloroform, and that the corneal ulcers be thoroughly cauterized with galvano-cautery, that the lids be thoroughly divided at the outer canthus, that the canthal ligaments be thoroughly divided both of the upper and lower lid so as to relieve the pressure of the lids upon the swollen conjunctiva. This procedure was agreed to; the

man was removed to the operating-room; chloroform was administered, and one third of the right cornea was thoroughly cauterized. The pressure of the cautery against the cornea produced a rupture of the cornea and the escaping aqueous shot into the air. The whole ulcerated surface was thoroughly cauterized in both eyes. Both canthal ligaments were divided in the two eyes, and the eyes were thoroughly irrigated with permanganate of potassium 1-2.000, and corneal surface dusted with iodoform. The eyes were bandaged immediately afterward with a compress bandage; in two hours this was removed, the eyes were again irrigated and another bandage applied. This was carried out three times a day, permanganate of potassium being used freely each time.

There has never been a drop of pus in the eyes from the time of the operation up to the present, a little serum and mucus only came away with the dressings. The bandages were changed three times a day, and the eyes irrigated each time with permanganate of potassium. We contracted the pupil with eserine before the operation, and this was also practiced before each irrigation, so as to prevent the iris getting into any perforation. There has never been any extension since the cauterization. The anterior chamber is being renewed in one eye with but a slight synechia. In the other eye, which was the one most thoroughly infiltrated, there is considerable prolapse of the iris, but the outcome of the case I think thus far is exceedingly favorable, and the chances are that the man will recover with one almost perfect eye, and the other with reasonably good sight. It is the most pleasant experience of the kind that I have ever had. I think that the success has been due first to cauterization, second canthotomy to relieve pressure of the lids upon the conjunctiva, third irrigation with permanganate of potassium. I did not touch the palpebral conjunctiva with the cautery, and certainly the permanganate of potassium must have had some influence in checking the pus flow.

I report the case to show how these extreme cases, that have been treated without benefit by the well-known and recognized measures, may sometimes be relieved by the adoption of heroic treatment, that we may frequently succeed in doing something in cases which under ordinary circumstances would be looked upon as hopeless. This case would certainly have gone on to total destruction of the cornea under the treatment which is recognized to be applicable to the majority of cases of this character.

Discussion. Dr. S. G. Dabney: Dr. Ray is to be congratulated upon the fortunate outcome of his case. The treatment instituted is a little out of the ordinary so far as the application of permanganate of potassium is concerned. Canthotomy is a well-recognized operation in such cases where pressure is intense, and it often does a great deal of good. Eserine, I think, is of great value not only as a temporary measure, as in this case, but in many cases of marginal ulceration of the cornea. It should be used with care, however, to guard against inflammation of the iris which is likely to be set up by its use. The actual cautery has been used in a great many cases of ulceration of the cornea, and is a very common procedure with all of us, but unfortunately the effect is not always as gratifying as in the case described by Dr. Ray. Undoubtedly the good result may be attributed in part at least to the irrigations with permanganate of potassium. At a recent meeting of this Society I reported an unfortunate case of ophthalmia neonatorum in which about the same line of treatment was followed as was carried out by Dr. Ray in his case, except that I did not use permanganate of potassium. I saw a case, a week ago to-morrow morning, in consultation with another oculist, not a gonorrheal case, however, in which there was a marginal ulcer of the cornea involving about two thirds of the corneal diameter, in which destruction of the eye seemed imminent. The treatment up to that time had been atropia with proper antiseptic cleansing. We applied the actual cautery and used eserine, and I was told to-day that the ulcer had not progressed since that time. The actual cautery and eserine will do much in these cases. Canthotomy is an old and well-recognized procedure.

Protective Measures against Yellow Fever. Dr. William Bailey: I am asked to speak to this subject from the standpoint of the State Board of Health. There is little to be said, except that the Board has done its utmost in the way of inspection and disinfection. We are having a little difficulty about accomplishing this fully, particularly as it is proposed to run a through train to Cincinnati, trusting to disinfection there, not permitting the train to be stopped in our own State, but passing on through. The difficulty in that is that disinfection at Cincinnati is not accomplished fully, because cars used in the train, those especially occupied by people from the infected districts, are to be returned over the same line, and there is some danger from this source unless they go farther south than Kentucky. Consequently I

am inclined to think that we will still have to look after the disinfection at Memphis Junction.

In connection with disinfection I would like to say that I think we have now an ideal disinfectant in formaldehyde gas. The generator now in use is much more active than the ordinary lamp, and enough of the gas can be produced to fill an entire train in fifteen minutes time; and besides this disinfection by formaldehyde gas requires a much shorter time than if sulphur or other agents are used. It interferes very little with traffic or travel, and we find that people coming from the infected districts are more than willing to have their trunks opened and have their clothing exposed for disinfection; they say if there is any yellow fever in their clothing or baggage, they would be only too glad to get rid of it. Only a short detention to the train is required for a very complete disinfection of all baggage, etc. The cars can be disinfected in an hour or two much more thoroughly than by the use of sulphur or any thing of that kind where it requires twenty-four hours for accomplishing the same purpose.

We have in formaldehyde gas a means of disinfection which is practically ideal, and it may be used for disinfecting houses, clothing, baggage, cars, and every thing of that nature. The great advantage is that it does not harm any thing with which it comes in contact. We know that many things were practically ruined by disinfection with sulphur, as to secure disinfection by this means you must have the presence of moisture. There is no question about disinfection with formaldehyde gas being thorough. To show that this is true, it is said that you can not turn formaldehyde gas loose in a laboratory where specimens are kept without the specimens being destroyed. If you have germs under cultivation, in tubes for instance, if the tubes are kept in a room filled with formaldehyde gas for an hour or two the gas will destroy or cause the death of the cultures.

JOHN MASON WILLIAMS, M. D., *Secretary.*

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Lectures by Professor J. Dewar; A Dispensary for Jews; Smallpox Outbreak; Statement by the Hospital Reform Association; Mr. Jonathan Hutchinson, F. R. S.; The Progress of Sanitation; Meeting of the Guild of St. Luke.

Dr. Jonathan Hutchinson, F. R. S., has expressed his desire of founding an educational museum in his native town of Selby, Yorkshire.

Professor James Dewar, President of the Chemical Society, will next month give an account of some of his most recent researches before the members of the Chemical Society. The Professor will deal with the following subjects, "The Properties of Liquid Fluorine," "The Liquefaction of Air and the Detection of Impurities," "The Absorption of Hydrogen by Palladium at High Temperatures and Pressures." Some few weeks ago Professor Dewar succeeded in liquefying fluorine for the first time in the history of science. The liquefaction was carried out in the laboratories of the Royal Institution.

Mr. F. D. Mocatta has opened a new provident dispensary in White Chapel for the use of Jews. The Jewish poor in the East End have experienced great difficulty in obtaining medical relief by reason of the inability of medical men to understand the Yiddish language. The new buildings will be open to patients of all nationalities and religions, but the staff of medical officers will be capable of conversing with the Jews in their own tongue. It will be conducted on provident lines, the original intention of making the institution free to all comers having been abandoned.

The Parliamentary paper, giving Dr. Saville's report upon the outbreak of smallpox at Warrington in 1892-93, shows that a well-revaccinated community of eight hundred persons in the town garrison entirely escaped, with the exception of a militia recruit who had not been revaccinated. The garrison mixed with the townsfolk, and largely frequented the public houses, amusements, and other places of public resort. The attack rate among the revaccinated persons in infected houses was barely more than half the attack rate among the "well vaccinated." In another instance a rising outbreak among the workmen of the chief iron works in the town was suddenly checked within fourteen days after the two weeks during which 1,300 or 1,400 of them were revaccinated. Dr. Saville estimates that nearly 99.2 per cent of the inhabitants had been vaccinated once in their

lives before the outbreak, almost without exception in infancy, but it was well shown at Warrington that vaccination in infancy does not by any means confer a lifetime's immunity.

A statistical statement issued by the Hospital Reform Association shows that in London the general hospitals have 5,349 beds, the special hospitals, 3,475, and cottage hospitals, 299, making a total of 9,123. The inpatients treated in one year were 62,774 in the general hospitals and 27,701 in the special. In the same year the general hospitals treated 897,389 outpatients and the special, 439,338. Among the general hospitals the largest number of inpatients appertains to the London, where they amounted to 10,559; at St. Bartholomew's they were 7,290, and at Guy's, 6,325, and at St. Thomas', 5,493. St. Bartholomew's appears with the largest number of outpatients, 161,419. The special hospitals include five for diseases of the eye. For diseases of the throat, ear, and nose there are six hospitals. There are five hospitals for diseases of the skin, six hospitals for diseases of the chest. The Hospital for Consumption has three hundred and twenty beds and treated 1,851 inpatients during the year, the outpatients being 13,750. There are three orthopedic hospitals. For incurable diseases there are twelve institutions, having six hundred and eleven beds and the inpatients were 839, no outpatients being attended by these institutions. Hospitals for diseases of the nervous system are three in number. There are six hospitals for diseases of women and eleven for diseases of children. There are also six lying-in hospitals and the hospital for cancer. Concerning the latter, the Middlesex Hospital has thirty-five beds set apart for the treatment of cancer, the patients being allowed to remain if they wish until they die.

Mr. Jonathan Hutchinson, the eminent authority on syphilis, has offered to assist clergymen and others in the formation of temporary educational museums in country places. He has built a permanent local museum in the town of Harlemere, where his country residence is. The building is used on Sunday afternoons as a lecture hall for addresses on educational, literary, and moral subjects. Mr. Hutchinson himself often conducts the meetings. The syllabus of his last lecture was, (1) Instinct and Habits; (2) Epochs in Man's History; (3) Browning and his Poetry; another discourse dealt with (1) Improved Chronology; (2) Fungi; (3) Life, Death, and Terrestrial Immortality.

Dr. Louis Parkes gave recently a most interesting lecture at the Sanitary Institute on the progress of sanitation in the Victorian era. Dr. Parkes thought that he might say that the chief glory of the past sixty years was the growth of exact knowledge as to the causes of many of the diseases and the adoption of measures—State, municipal, and private—that science had indicated as necessary to counteract the diseases and the disease tendencies by which the population was continually assailed. At the present time public health acts and sanitary authorities have revolutionized the lives of the poor. The mortality from smallpox had dimin-

ished by ninety-six per cent in 1891-95 as compared with the mortality in 1838-42. In the same period the deaths from fever had declined eighty-two per cent, while since 1871-75 there had been a decrease of ninety-five per cent in the mortality from typhus, and of sixty per cent from enteric fever. Since 1861-65 the mortality from scarlet fever had fallen eighty-one per cent, although that from diphtheria had risen in recent years and was now very much the same as it was thirty years ago. In phthisis the mortality had fallen forty-six per cent, though it was still high. Cancerous diseases, on the other hand, appear to have increased, nor was the whole of the increase, Dr. Parkes considered, due to more precise diagnosis. Ague, which was extremely prevalent, had been nearly eradicated. Only those who died from acute alcoholism were returned as having died from the effects of drink, yet, notwithstanding the more temperate habits of the people, the deaths from this cause were as numerous as they were thirty years ago. The general effect of improvement in sanitation was that six hundred thousand persons reach the age of twenty-one years, who would have died sixty years ago.

The members of the Guild of St. Luke celebrated the thirty-third anniversary of their existence by what was called a "Festival Evensong" in St. Paul's Cathedral. A considerable portion of the cathedral was reserved for members of the College of Physicians and Surgeons. The attendance of medical men numbered between two thousand and three thousand, about three hundred of whom wore the robes denoting their several degrees.

LONDON, October, 1897.

Abstracts and Selections.

OXIDE OF IRON IN BACTERIA.—The association of oxide of iron with certain bacteria has been remarked by various observers, and an instance of this phenomenon occurring on a large scale has been investigated by Professor Manabu Miyoshi, who holds the chair of botany in the University of Tokio in Japan. His observations are published in German, and appear in Vol. x of the Journal of the Colleges of Science, Imperial University, Japan. The material examined by him was a ferruginous mud from the hot springs of Ikao; it is formed upon stones and earth under the influence of the warm ferruginous water which trickles from crevices in the rocks, and on account of its therapeutic properties it is often collected by persons who go to the springs to bathe. This mud consists entirely of bacteria, and can be easily separated from the ferruginous matter which contains few or no bacteria, as it has a pale ochre-yellow color, and a homogeneous, fibrous, slimy consistence, whereas the latter is of a dirty-brown

color and a finely granular consistence. Microscopic examination proves that the mud consists entirely of bacteria cells. The smallest possible portion spread evenly on a cover-glass and dried over a spirit lamp shows innumerable yellow, thread-like cells of unequal length, varying from $\frac{1}{2}\mu$ to 1μ in diameter; they are both straight and curved, and they may be either solitary or grouped in masses. With these thread-like cells there are mingled a number of minute rod-shaped cells. The bacteria seem to resemble the *Leptothrix ochracea* of Kütz; further observations are necessary in order to determine whether they are a new species or not. When the cells are treated with moderately strong hydrochloric acid they not only lose their yellow color but their outline disappears without leaving a trace behind, and the subsequent addition of ferrocyanide of potassium produces the blue color characteristic of iron. If a much weaker acid is applied to one side of the preparation the cells become gradually decolorized, and ultimately there remain hyaline fragments of cells, which are seen with difficulty, but become easily visible after staining with fuchsin solution. The action of hydrochloric acid led Professor Manabu Miyoshi to believe that the oxide of iron is not deposited on the walls of the cells, but is more or less intimately incorporated with them. The cell walls were entirely free from coarse granules, but on careful examination with Zeiss's $\frac{1}{4}$ immersion lens and No. 4 eye-piece he found extremely minute particles on many cells. In addition to the thread-like and rod-shaped cells the bacterial mass contained a small number of cells resembling spirocheta (some of them similar to the *spirillum ferrugineum* of De Thoni), which were often associated in ramifying groups. No others of the more common iron-containing bacteria—such, for instance, as *crenithrix Kühniana* (Rabenhorst)—were found in this particular mud, but fragments of broad, thread-like cells, with diagonal walls were sometimes seen, which were probably psychohorium; diatoms were also often observed in the less pure portions of the mud. On account of the minuteness of the bacteria cells it could not be determined whether they contained plasma or not. The natural conditions at these mineral springs are highly favorable to the growth of bacteria; the water contains 0.021 gram of bicarbonate of iron per liter, and has a temperature varying from 41° to 45° C.—*Lancet*.

DIET DURING COURSES OF MINERAL WATERS.—Dr. F. Parkes Weber, writing in a recent number of *Treatment on the dietary suitable for patients at mineral water resorts*, says that C. von Noorden, Karl Grube, and many others have pointed out that the true rules of diet to be observed while undergoing a course of mineral water are the rules suitable to the individual constitution of the patient and the complaint from which he is suffering. Among articles of diet which were supposed to be specially unsuitable at Carlsbad, butter and fats were the most noteworthy because they are such extremely important foods. The mineral water was supposed to prevent their proper digestion and assimilation. Not only was fat pro-

hibited with sulphated alkaline waters, such as that of Carlsbad, but with muriated waters, such as those of Kissingen and Homburg. Recently, however, F. Kraus has shown experimentally that a course of sulphated alkaline waters does not prevent the proper absorption and assimilation of the fat taken with other food; and C. Dapper had already proved the same to be the case in regard to courses of muriated waters, such as those of Kissingen and Homburg. Kraus gave considerable amounts of fatty food to patients suffering from complaints likely to be met with at Carlsbad, treating them at the same time with fair daily doses of Carlsbad (Mühlbrunnen) water, and he found that the percentage of the ingested fat which could be recovered again in the feces of these patients was not unduly increased by the use of the mineral water. Dr. Parkes Weber hereupon remarks that a fatty diet gives rise to trouble in certain cases independently of spa treatment, and in such cases the diet while the patient is at the spa will have to be regulated. For instance, patients who suffer from obesity or from gastric dilatation due to fermentation of the contents of the stomach must have their diet regulated with respect to fatty and fat-producing foods. There is no doubt that the facility for regulation of diet at some spas, such as Carlsbad, has greatly helped in their reputation for the treatment of certain affections, especially diabetes and obesity. Spas where by a strict *à la carte* system of dining the carrying out of dietetic rules is made comparatively easy are likely to outstrip their rivals where a *table d'hôte* system prevails. Moreover, the strict quantitative limitation of the evening meal must have had, and still does have, a wholesome effect at many health resorts. The patients can go to bed earlier after a light meal—a great advantage when they have to rise at a very early hour to drink the waters—and in most persons when free from excessive mental work the digestive powers are probably strongest during the middle of the day. In many persons, also, temporary discontinuance of strong tea or coffee in the morning can do no harm, and can best be carried out at health resorts during periods of rest from the mental work of ordinary life. The substitution of farinaceous soup, etc., which formerly constituted the morning meal at various spas, might still often be recommended.

THE VALUE OF ARSENIC AND BELLADONNA IN THE TREATMENT OF CHOREA.—In the *Lancet* for July 31st Dr. Walker Overend states that he has had an opportunity of testing the value of arsenic and belladonna in the treatment of chorea in twenty-five cases, the results of which he summarizes as follows: The observation of the cases here mentioned gives the impression that large doses of arsenic have a beneficial influence in subduing the movements, and this is best seen after the movements have existed for some time—weeks or months—that is, when a cure seems almost hopeless. The drug should be given after food, and the little patient should lie down for half an hour afterward in order to avoid retching and nausea.

In regard to belladonna, Dr. Overend states that Dr. Fuller gave large

doses of the drug in twelve cases. (Medical Times, July 1, 1895.) One girl, ten years old, received seventy grains of the extract daily, the average dose for an adult being half a grain. She took a thousand grains in twenty-six days. Another took thirty-seven grains of atropine in eighteen days, the average dose for an adult being a fiftieth of a grain. During the administration neither fever, rash, nor erythema was noted. The pulse became quick and the urine scanty. Only in two instances was indistinctness of vision observed; four suffered from sickness and diarrhea. There was no dryness of the throat, no headache, and no delirium. In two patients the belladonna was useless; in the remainder its efficacy was noteworthy. The drug was readily absorbed from the stomach and passed out in the urine, from which it could be extracted. The phenomena of chorea, Dr. Overend says, appear to be due to a nutritive and functional disturbance or ataxia of the higher nerve centers. *Post-mortem*, a general tendency to dilatation of the smaller arteries within the substance of the brain accompanied with exudation is observed. This appears more especially in the corpus striatum and the regions supplied by the middle cerebral arteries; in other words, there is pronounced hyperemia of these nerve centers. It is probable that the chief stress falls upon the Rolandic areas. Such vasomotor ataxia might be induced by reflex disturbances arising within the digestive tract, by uterine irregularities, or by emotional disturbances. In the rheumatic diathesis the toxin may attack the motor centers directly.

In conclusion, he says: (1) Belladonna appears to be most beneficial in recent cases, and its influence is sometimes very marked in severer forms. (2) In obviously rheumatic cases arsenic in large doses may be given a trial or may be combined with belladonna from the first. Belladonna may act by diminishing the excitability of the nerve centers or by imparting an improved tone to their vascular supply. (3) In the wards of a hospital it is perfectly justifiable to give to a child as much as thirty minims or more of tincture of belladonna every four hours for ten days, or even longer. Certain precautions are necessary. The patient should be kept in bed and the urine should be daily measured. Small doses of potassium acetate may be added if it becomes much diminished or if the eyelids show any puffiness. In one child nocturnal incontinence occurred, and the dose was lessened. The occurrence of the papular erythema, which leaves raised circular lumps for a time, does not demand any diminution of the dose. Dryness of the throat and swelling of the parotids, should they occur, are merely temporary. The influence of the belladonna makes itself felt after about four days. Should no visible improvement occur before the tenth day it would be useless to continue with it. But in all the eight severe cases already referred to belladonna was of benefit, and is certainly worthy of further trial. As soon as the movements become trivial or occur only during exertion it is better to omit the belladonna, to begin massage of the affected muscles, and to administer cod-liver oil and syrup of phosphate of iron or other tonics. The use of arsenic may be continued for a week or longer.—*New York Medical Journal*.

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THE AMERICAN PRACTITIONER AND NEWS.

Beginning with January 1, 1898, this journal will be changed from a bi-weekly to a semi-monthly, and the subscription price will be reduced from \$3.00 to \$2.00 per annum. The issue days will be the 1st and 15th of each month.

The object of the change is to enable the publishers to place the journal fairly in competition with the many monthly journals now offered to the profession at one dollar per year. The number of issues will be reduced from twenty-six to twenty-four; but the shrinkage in number will be more than compensated for by the very low subscription price, and a substantial improvement in the contents of the numbers which the publishers promise for the ensuing years. For, while the journal will continue the publication of papers by our own distinguished Kentucky physicians and surgeons and the excellent society reports of the Kentucky State Society, the Louisville Medico-Chirurgical Society, the Southwestern Medical Society, the Central Kentucky Medical Society, and others, arrangements have been made for a number of papers by Northern and Eastern celebrities, which will add materially to the interest and influence of the journal.

In addition to these features the editorial department will be conducted with increased efficiency, and the journal will outstrip its already flattering record as the medium of first-class medical papers,

the vehicle of the latest medical news, the epitome of the most recent medical literature, and the mirror of the most advanced medical thought.

Believing that our subscribers will duly appreciate the proposed changes and improvements, we bespeak for the coming year the continuance of their liberal patronage with the exercise of such kindly influence as shall be instrumental in swelling our subscription list to hitherto unheard of proportions.

Notes and Queries.

THE ADDRESS IN SURGERY.—British Medical Journal's editorial comment upon the Address in Surgery by Mr. Mitchell Banks at the Montreal meeting of the British Medical Association: There are many difficulties that attend a presidential address at the annual meetings of the British Medical Association, and among them is the right choice of a subject. The President of each Section must decide between things ethical and scientific and historical; between coasting round a whole continent of thought and exploring some one small region; whether he shall speak of the past, the present, or the future, or all three of them. The ethical address is often a failure, too vague in its generalizations, *de omnibus rebus et quibusdam aliis*; and the same objection holds good against speaking of the politics of our profession. Again, there is risk of failure in those addresses that go to the opposite extreme, being devoted to the full exposition of this or that special subdivision of scientific work. The historical mode is the surest way to success; but there is no great pleasure or profit in a bird's-eye view of the whole history of our art, from Hippocrates down to ourselves. Indeed the name of Hippocrates should be put aside at all Association meetings; and, it may be added, he has figured in so many introductory addresses that it would be well to let him rest for the next few years. Therefore the President, if he has taken history for his motive, must limit himself to one period or to one set of facts.

And this is the excellence of Dr. Mitchell Banks' address in Surgery, that he brings together the lives of a few great surgeons, men far apart in time and place, but united in their high calling. It would make a good book, the history of military surgery, and Mr. Banks should write it; for he has already won his laurels on this field of literature.

And what he says of "The Surgeon of Old in War" is of especial value both for the freshness of the subject and for the heroic note in it. He begins with the Romans, and tells how their legions were not left without

organized medical service; how tablets have been found in Northumberland, Rome, Verona, and "the Elysian Fields near Baiæ," witnessing that where the legions went, there the doctors went with them. But why does Mr. Banks begin with the Romans? Surely the Greeks had "surgeons of old in war," as far back as the Homeric age: Machaon, and Podalirius, and the rest of them:

"A wise physician, skilled our wounds to heal,
Is more than armies to the common weal."

Therefore, if he will write this book, he should begin with the Greeks, and having done with Greece and Rome, and come to "the Middle Ages," there is a wealth of facts, as he knows, in Malgaigne's colossal introduction to his edition (1840) of Paré's works; all about Saint Louis and Jehan Pitard, and the medical service that Charles the Bold, Duke of Burgundy, organized for his army.

But he must reconstruct his account of Paré. For all that Malgaigne says about it, the date of Paré's birth was 1509 or 1510, not 1517; nor did he "lead an incessantly active life," in the ordinary sense of the words, for the first few years after he was born. It is not probable that the Verdun story is genuine; there was no battle or siege of Rheims or of La Fère; he went to Dreux the day after the battle; and we do not know that he was at Saint Quentin or at Moncontour, or that he attended Charles IX in his last illness. He did not write to his wife for ransom after the fall of Hesdin; it was M. Goguiet who wrote. He did not "invent the ligature," and never said that he did; he only invented the use of it in amputations; and he did not take for his motto that favorite saying of his, "*Je le pansay, Dieu le guarist*;" the motto he chose for his own portrait in his books was "*Labor improbus omnia vincit*."

The lives of Clowes and of Lowe, of Woodall and of Wiseman are delightful reading, and Mr. Banks has handled them so well that he has left us wishing for more. Then he shows us a man who excelled all of them; and, if he had begun with Paré and ended with Baron Larrey, he would have persuaded his hearers that the highest names in military surgery belong not to the English-speaking nations but to the French. Therefore, to redress the balance, his peroration honored the names of Thomson, Wolseley, Landon, Whitchurch, and Reade—to whom he should have added Thomas Heazle Parke.

Then, for the final touch, he gave that most memorable fact, that fourteen men of our profession have the Victoria Cross; and with this reminder, offered to Her Majesty's Government for their consideration, ended a most admirable address, off the beaten track, on the right lines.

DEEP-TISSUE TRAUMATISM FROM RÖNTGEN-RAY EXPOSURE.—In an article on this subject in the British Medical Journal for July 31st Dr. David Walsh remarks that it seems to him that the method of Röntgen-ray diagnosis may exert a definite harmful action upon some of the deeper tissues

of the human body, and he cites the following cases in support of his opinion :

Professor Waymouth Reid, of Dundee, experienced a severe dermatitis and loss of hair after four exposures, from twenty to forty minutes each, within a period of four days. The focus tube was placed over the front of the body, and on the evening of each exposure marked erythema of the chest and belly was noticed, as well as slight redness of the back. This interesting observation seems to point to a kind of selective action traumatism of the deeper epidermis and dermis by rays capable of passing through the substance of the body.

Another instance was given by Mr. Gilchrist in the Johns Hopkins Hospital Bulletin for February, 1897: It was that of a demonstrator, aged thirty-two years, affected by a severe dermatitis after frequent and prolonged exposures. At the same time the bones of the hand became tender on pressure. A skiagraph showed the presence of a distinct osteoplastic periostitis, and probably an osteitis of the first and second phalanges of the index and second fingers, and also of the heads of the corresponding metacarpal bones.

A remarkable instance of apparent injury to brain structures by the rays of the focus tube is the following: The sufferer, a man forty-nine years of age, had demonstrated the rays for some months, and had suffered from several slight attacks of dermatitis. At length he experienced a severe illness after a week's prolonged demonstration, during which the tube was constantly near his head, although separated by a wooden screen. The main features of his attack were giddiness, slight headache, vomiting, diarrhea, high temperature, and prostration. He was under the care of Dr. Murray, of Clacton-upon-Sea, who furnished the following note: When the patient came under observation his temperature was 103.5° F., pupils sluggish, frequent diarrhea and vomiting, great languor and debility. Dr. Murray regarded the attack as in some way due to Röntgen-ray exposure, and compared it at the time with the symptoms of sunstroke. The giddiness persisted for two months. On the whole, the facts of this illness appear to be consistent with a theory of gastric and cerebral irritation set up by focus-tube exposure in a subject proved to be susceptible by previous dermatitis from a similar cause.

The following case also came under the author's notice: A practical worker was carrying out a series of experiments involving exposure of the region of the stomach for a period of about two hours daily. After some weeks he complained of gastric symptoms, such as pain, tenderness on pressure, flatulency, colic, and diarrhea. He went away into the country for a fortnight and got well. On his return he resumed his experiments, and after a fortnight experienced a similar attack. He subsequently shielded his stomach with a thin sheet of lead, and his symptoms finally disappeared. This history certainly suggests that in his case the rays of the focus tube caused a direct inflammation of the gastro-intestinal mucous membranes,

Other facts pointing to deep action of the focus-tube rays are the local tremors often set up by exposure, and the apparent shrinking of the heart noticed in several instances by Dr. Bezley Thorne. Lastly, there is the action, noted by Despeigne and others, of these rays in the relief of the pain of cancer.

If, says Dr. Walsh, from the foregoing it may be assumed that focus-tube traumatism of the deeper structures of the human body occurs, then we have at once a remarkable analogy with the results of exposure to the sun. Severe resulting rashes are common to both agencies, and may follow a single exposure. Pigmentation of the skin is another common effect. In the case above mentioned Despeigne used the rays to relieve the pain of cancer; he reported that after the eightieth sitting the skin of the patient's neck became as black as that of a negro. Then in the case of Dr. Murray there is a perfect mimicry of mild heat apoplexy. So far as any ill effect of the sun on gastro-intestinal mucous membranes is concerned, the author states that he knows of no direct evidence; on the other hand, however, obstinate constipation is the rule, together with what is usually regarded as cerebral vomiting. From the inherent conditions of the exposure, the brunt of the sun's rays would naturally fall upon the head, and it is commonly supposed by anatomists that the thickness of the negro skull is an acquired character due to prolonged exposure to the rays of a tropical sun. We know that sunlight has a powerful influence upon the general health, and it seems quite possible, he says, that the sun may have a much greater and more direct effect upon the deeper structures of the human body than has been hitherto imagined.

Gilchrist, continues the author, mentions three chief theories as the cause of focus-tube dermatitis:

1. Professor E. Thompson thinks that the injury is caused by the x rays, or by something that constantly accompanies them. He himself was skeptical as to the traumatism, and exposed his own hand at a distance of a few inches to a Crookes' tube, an experiment which resulted in a severe dermatitis.

2. Tesla maintains the effect to be due to ozone liberated in the surface tissues. His theory, however, is upset if we accept the existence of focus-tube traumatism of the deeper structures, where ozone is not generated.

3. Gilchrist fancies the result to be due to actual particles of platinum carried by the cathode rays. If so, they must have been carried through a board in Dr. Murray's case.

Dr. Walsh is inclined to think that the focus-tube traumatism may ultimately prove to be due to heat rays, in other words, to be a kind of burn. The cathode rays strike the platinum anode or anticathode and make it hot; there they are in part converted into Röntgen rays. What becomes of the rest of the cathode rays is not quite known, he says, but it is generally believed that some of them at any rate are converted into heat rays, by which means a tube in action becomes warm.

This theory, Dr. Walsh says, was suggested to him by the following cases which were brought to his notice by Mr. Webster, of Blackheath, who has had considerable experience in Röntgen-ray work: In the first instance he exposed an individual something like a score of times during a period of six months. Six weeks after the last exposure the hair fell out from one side of the head. The only differing condition of experiment, so far as could be ascertained, in the last exposure was that the cathode end of the Crookes' tube had been kept continually heated.

The other case was that of Mr. Webster himself. For a year or more he had undergone constant exposure to the rays without bad results. He then injured himself with a metal developing solution, and shortly afterward a diffuse dermatitis appeared on the back of his hand. This traumatism again coincided with the heating of the cathode end of the tube.

Now, continues the author, in both these instances previously insusceptible persons became susceptible under altered conditions of experiment. The alteration consisted in heating the cathode end of the tube, which means, when applied to a Crookes' tube in action, an increased production of cathodal rays which are, as already stated, in part converted into heat rays. There is therefore some probability that in heating the cathodal end of the tube we increase the resulting heat rays thrown off from the tube. Lastly, the cathode rays strike the platinum anode or anticathode and render it red hot, and it is not unreasonable to suppose that their contact with the skin surface might also have a calorific effect. The identity, however, of the actual damaging factor to the living human tissues is still unascertained. It may possibly prove to be a non-luminous ray common to sunshine and to the rays emitted from a focus tube. In both sun and focus-tube traumatism individual predisposition plays a vital part. Whatever the real nature of the irritant ray, it is obvious, says Dr. Walsh, that the subject is pregnant with future possibilities as it is instinct with present interest.—*New York Medical Journal.*

JOHN BRAXTON HICKS, M. D., LOND., F. R. C. P., F. R. S.—We regret to record the death, at the age of seventy-two, of Dr. John Braxton Hicks, late Consulting Obstetrical Physician to Guy's and St. Mary's hospitals, which took place on August 28th. He died at his residence, the Brackens, Lymington, whither he retired from active practice some three years ago, after a painful illness of three months, the result of influenza. He was the son of Mr. Edward Hicks, J. P. He studied medicine at Guy's Hospital, where his career was distinguished. In 1844 he passed the First M. B. Examination of the University of London, taking the Scholarship and Medal in Materia Medica and Pharmacy, together with Honors in Anatomy and Physiology, and in Chemistry. At the Final M. D. Examination in 1847 he obtained honors in Physiology and Comparative Anatomy, in Surgery, and in Medicine.

Braxton Hicks will always be remembered as one of the pioneers of

British work in midwifery and diseases of women. It was at Guy's Hospital, where he held the post of Obstetric Physician for many years, that most of his best work was done. In 1859 he was appointed Assistant Obstetric Physician, in 1870 Obstetric Physician, and in 1882 Consulting Obstetric Physician.

The whole range of midwifery and diseases of women has been enriched by his work, but his reputation will rest upon his classical papers on the Combined Internal and External Version, and on Intermittent Contractions of the Uterus during the whole of Pregnancy, which will be found in the Transactions of the Obstetrical Society. His work on the Cephalotribe in 1869, and the modifications he introduced in the instrument, have stood the test of experience, and the special pattern of the instrument which bears his name is still and is likely to continue in use by the majority of British obstetricians.—*British Medical Journal*.

THE ACTION OF "X" RAYS ON MICRO-ORGANISMS.—Bonomo and Gros (*Giornal Med. del Regio Esercito*, an. 45, n. 6,) have made researches in the military hospital at Rome on this subject. They subjected cultures of various micro-organisms (*B. subtilis*, *B. tuberculosis*, *B. anthracis*, and others) up to the third generation to the influence of the x rays, applied vertically, for a period of about three hours each day. Some retardation or diminution of vitality, vegetative and pathogenic, was observed in every case, but the change was for the most part very slight, except in the case of *B. anthracis*. With this microbe a well-marked diminution in motor activity, modification of chromogenic power and loss of spore-producing property was observed. With this, too, a complete attenuation of pathogenic effects was observed, so that the authors feel it might be possible through successive cultures exposed to the x rays to make the *B. anthracis* innocuous. No such marked results were obtained with the other micro-organisms under the influence of the same rays. In every case such effects as were observed were more noticeable in the later than the earlier cultures.—*Ibid*.

ABSTINENCE AND LIFE INSURANCE.—In corroboration of our reference, in an article on "The Progress of Temperance," to the lower rate of mortality in the groups of abstaining assured lives than in the groups of non-abstainers, Mr. W. E. Wright cites the experience of the Scepter Life Association. The calculations of mortality have been based on the Institute of Actuaries H. M. Table, and extend over thirteen years—1883-96. Among the abstainers the expected deaths were 744, while there were only 432, a percentage of 58.06. Among the non-abstainers the number of deaths looked for was 1,399, and the actual number who died were 1,131, or 80.84 per cent of the expectancy. These with similar experiences of insurance societies which have two groups of lives, abstaining and non-abstaining, present an object lesson of great interest to physiologists and physicians.—*Ibid*.

Special Notices.

DR. THEO. W. PEERS, of Topeka, Kans., says: I desire to report two cases in which I used Papine with very gratifying results. The first case was that of a man suffering with a non-operable case of epithelioma of the left side of the face. He had been operated on by a surgeon here, but on recurrence of the disease went to a "cancer doctor," who used a paste which "burnt" out a large amount of tissue and started up a very rapid growth of the tumor.

When he came into my hands in October, 1895, the disease was so extensive that to make him comfortable was all I could hope for. Morphine, cocaine, and codein were tried, but with such distressing after-effects that they had to be abandoned. I then began using Papine, and two to four doses a day of a teaspoonful each kept him comfortable, with absolutely no unpleasant after-effects and with no increase in the amount given per day. The rapidity of the growth was decreased so that he lived until June, 1896, whereas, when I first saw him I did not think he could live three months.

The other case was one of probable tubercular peritonitis. I used it for six months with no after-effects, and always with relief to the patient. I know of no other anodyne that could be used for so long a time without unpleasant after-effects and without increasing the dose.—*Gaillard's Medical Journal, September, 1897.*

THE ELIMINATIVE TREATMENT OF GOUT.—Cases of typical gout are frequently observed in this country as in Europe, and perhaps, as has been suggested, the disease masquerades in other forms, of which lithemia is a prominent example. Whatever be the form, however, in which the *materies morbi* manifests itself, the treatment essentially is to promote its elimination from the system. Alkalies, especially lithia, do this, but only to a limited extent; besides they sometimes disturb the digestion. Salicylates have the same disadvantage in a more marked degree, and moreover their anarthritic power is still doubted by many authorities. Lycetol has none of these objectionable features. It is agreeable, readily taken, and does not irritate the stomach even when its use is continued for long periods. That it increases uric-acid elimination is shown by the abundant discharge of gravel in the urine following its administration. Coincidentally with this, the pains and inflammatory phenomena of the gouty state subside and even tophaceous deposits about the joints vanish under its continued use. In lithemia its employment in connection with diatetic and hygienic regulations will be found to afford permanent improvement by promoting the excretion of those poisonous substances which, when accumulating in the system, give rise to the many discomforts of persons subject to the uric-acid diathesis.

SANMETTO IN CYSTITIS, PROSTATITIS, AND GONORRHEA, AND IN ALL IRRITABILITY AND INFLAMMATION OF THE GENITO-URINARY TRACT.—In my practice the administration of Sanmetto has given excellent results. I have found it unequalled in cases of cystitis and prostatitis, and all cases of irritability and inflammation of the genito-urinary tract. In many cases of gonorrhea I have used it with excellent satisfaction. I am pleased to recommend Sanmetto to the profession as a preparation which has proven invaluable to me in treating the above named conditions.

Jackson, Mich.

C. W. SHAVER, M. D.

THE usefulness of good Hypophosphites in pulmonary and strumous affections is generally agreed upon by the profession. We commend to the notice of our readers the advertisement in this number. "Robinson's Hypophosphites," also "Robinson's Hypophosphites with Wild Cherry Bark" (this is a new combination, and will be found very valuable) are elegant and uniformly active preparations; the presence in them of quinine, strychnine, iron, etc., adding highly to their tonic value.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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NO. II.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ADENOID VEGETATION OF NOSE AND PHARYNX, AND TREATMENT.*

BY A. H. EDWARDS, M. D.

This disease may be defined as a true hypertrophy of the normal lymphoid structure found in the vault of the pharynx. Like all other granular hypertrophies, these growths show a tendency to disappear at puberty. This may be accounted for by the morbid activity of the tissues. I think these growths properly should not be called tumors, as some authors term them, for they are only a hyperplasia of the lymph tissue which constitutes the so-called pharyngeal tonsil.

Symptoms. The prominent and most troublesome symptom to which the presence of these growths gives rise is an excessive discharge of mucus. The source of the discharge is undoubtedly in the diseased glands, the secretory function not being destroyed by the morbid process, which has given rise to hypertrophy, but is, on the contrary, greatly increased. We find that, if the growths are small, the pus in most cases will find its way into the pharynx; but, if they are large, the discharge makes its way through the nasal cavities proper, and is blown out through the nostrils.

Another symptom which may be traced directly to the existence of these growths, and perhaps the first to be noticed, will be the altered character of the voice. This is changed into what is called the dead

*Read before the semi-annual meeting of the Southwestern Kentucky Medical Association at Benton, Ky., October 26, 1897.

voice. It is a voice with a cold in the head. This change of voice is due to the growths projecting from the walls of the pharynx which interfere with the sound-waves. Occasionally the disease assumes a purulent character and scabs are formed, and when "hacked" into the mouth are expectorated, leaving the under surface somewhat abraded with a tendency to bleed.

Ear complications are often present, due in some cases to pressure upon the mouth of the eustachian tubes, and in others to extension of the catarrhal inflammation into them. The appearances of these growths vary greatly in different cases. In some they resemble a cushion, extending from the posterior nares along the roof and upper part of the nasopharynx to within a short distance above the level of the soft palate, more or less deep depressions rendering its surface irregular. In others they present the form of rounded bodies, resembling small, pink beans which hang in clusters from the roof of the cavity and hide from view the upper portion of the posterior nares. Their color is a light pink, which becomes red on touch with the probe. When the rhinoscope can not be used in children the examination can be made with the index finger pressed behind the soft palate. The sensation communicated to the finger when the grape-like variety is met with is that of a mass of worms. In the cushion-like variety a soft smooth surface is felt. These symptoms with the facial expression and the patient breathing through the mouth will ordinarily prove sufficient for a correct diagnosis. Examination, however, by the rhinoscopic mirror, when it can be used, will give the additional information of the size of the growths. The prognosis in these cases is favorable. I have already stated that these growths have a tendency to disappear at the age of puberty. Now the question arises, Shall we or shall we not leave these cases alone without treatment, especially if they are mild? I think not, for the treatment involves no possible risk to the patient, and the growth is subject to attacks of acute inflammation which may cause danger to the neighboring organs. Again, if these growths do not disappear at puberty, they will remain as a permanent source of a chronic nasopharyngeal catarrh.

Treatment. Give cod-liver oil with general tonics. As to local treatment, I think astringents applied with a spray, or better, a compressed air machine, is very good to limit the amount of secretions. This, however, is all that can be expected of the astringent treatment, especially if the growths have attained a large size. Owing to the

prejudice against surgical operations in the minds of some people, we are compelled to resort to destructive agents for the removal of these growths, such as nitrate of silver or chromic acid applied on an applicator, and yet it is almost impossible to apply these agents without touching the soft parts. There are many instruments made, such as forceps, ring knives, etc., for removing these growths, but I remove them with galvano-cautery. I put the knife in the proper place, and then by pressing a button on the handle of the instrument I turn on the electricity; and, after the growths have been burned off, I stop the electricity and still hold the instrument in place until it cools and then remove it. In that way I do not burn the soft parts and do not have any loss of blood, which is a great consideration, and with the use of cocaine but very little pain. The after-treatment will consist of a solution of albolene and menthol sprayed in the cavity three or four times a day until the parts are healed, and then we are not likely to have a return of the disease.

Momentary Insanity from the Use of Sulphate of Atropia Used in the Eye. In 1894 a white man came to me from Missouri to be operated on for cataract. I used a weak solution of sulphate of atropia in the eye three times before the operation, to see if there were any adhesions of the iris, and in a few hours after its use the patient lost his mind. I thought it due to the dread of the operation, and when he was better I sent him home. However, he recovered in a short time.

In 1896 a colored woman came for the same operation, and I used the atropia as I did in the other case, and she too lost her mind; but when she came out from under the influence of the atropia her mind was clear. Believing the medicine to be the cause, I used it again, and it had the same effect as before. And as she was in good health, and did not dread the operation, I knew the atropia caused the insanity.

These are the only cases that I have had in my practice, and have never seen or heard of any reported before. The cause of the insanity was no doubt due to idiosyncrasy.

PADUCAH, KY.

AUTUMNAL FEVERS.*

BY H. H. ROBERTS, M. D.

Beginning about the middle of August, and continuing through September and October, there prevails a form of fever which may exist in a more or less epidemic or endemic form.

These fevers are more prevalent in the rural districts and smaller towns, and to them we shall apply the term autumnal fevers, as it is during this season of the year that we see most of the cases. These fevers exist in various forms and types, the majority of which I believe to be of malarial origin. The term "malaria" as now used by many is confusing and unscientific. To say a patient has malarial fever does not give any definite idea of the form of the fever, and the term should not be used in that sense. It is properly applied only to distinguish that class of fevers which are due to a specific micro-organism, the parasite of malaria, and that yields readily to the treatment of quinine. That these fevers are more prevalent during the heated term, low stages of water, etc., is sufficient evidence that there is something in either the atmosphere, water, or soil that makes the environment suitable for the propagation of these parasites. The fevers may be said to depend on soil, season, and surroundings.

As I wish to speak principally of the malarial fevers, I shall take them up in the order in which we usually find them in practice. In the early part of the season we have the tertian or intermittent fever, later in the season, the more continuous estivo-autumnal fevers or remittent fevers. Infection seems to be greater at night than during the day, and greater in the lowlands and marshy places along the banks of stagnant streams, ponds, or near dwellings where there is decayed vegetation and bad drainage. The manner in which the individual is infected by the malarial organisms is yet in doubt. (1) The respiratory tract, (2) the digestive tract, and (3) the skin are favorable ports of entry. Observation seems to favor the respiratory tract as the most frequent avenue of infection; however, there is no positive proof that this is true. Numerous attempts have been made to infect individuals by the digestive tract, but without favorable result. Unfortunately any attempt to cultivate the parasite outside of the body has been without results. At the present time it is a mere conjecture as to the manner by which the parasite enters the body. Inoculation may take place by

* Read before the Kentucky Midland Medical Association at Cynthiana, Ky., October 21, 1897.

the sting of suctorial insects, such as the mosquito, and this may explain why infection is greater at night than during the day. Emin Pasha always carried with him on his African journeys a mosquito net, and to the use of this he attributed the fact that he never contracted malaria.

The period of incubation is yet uncertain, from the fact that we have no knowledge of the form in which the parasite exists outside of the body, or the mode by which it enters the body. Until this is made clear the period of incubation will remain in doubt. Where a healthy individual has been inoculated hypodermically or by the transfusion of blood from an infected individual, the period of incubation varies from four to fifteen days; suffice to say that the period of incubation represents the time necessary for the parasite to reach by multiplication the quantity necessary to determine the fever, varying, however, in the types and groups of the parasite; and circumstances may produce an early attack in one instance, while in another the period may be delayed for some time. The parasite having once entered the body takes up its habitation in the red corpuscle of the blood, entering into and developing in its interior, not on the outside as was at one time supposed. There are formed pigmented granules from the altered hemoglobin, the elements of the corpuscle are finally destroyed and the organism breaks through the remaining walls of the corpuscle; at the time of sporulation the segments are thrown into the blood and new corpuscles are attacked. Upon an examination of the blood of a case of tertian fever, it shows the organisms all at about the same stage of development, and if we examine the blood at intervals during the cycle of development the same characteristic will be found to exist. Galgi discovered the fact that the malarial paroxysm always coincides with the sporulation of a group of parasites, and so regular is the development of the parasite and the clinical manifestation of these cases that we can almost tell the hour when a paroxysm will take place. The blood may be infected with two groups of parasites, so that we have one group reaching maturity on alternate days; there will then be a paroxysm daily, producing quotidian fever. Multiple groups may be present, thus forming a continuous form of fever, one paroxysm merging into another with very slight remissions, producing a remittent fever.

The parasite of tertian fever reaches its cycle of development from its earliest stages to that of segmentation in about forty-eight hours, all the parasites arriving at maturity undergoing sporulation and again

passing through their cycle of existence in unison. The cycle of development of the parasite of estivo-autumnal fever is uncertain, from the fact that the different development of the parasite is not always to be found in the peripheral circulation.

Having briefly considered the parasite of these cases, let us look at the clinical symptoms. The paroxysm may be divided into four stages: (1) the chill, (2) the fever, (3) the sweat, (4) the remission. The chill is the beginning of the paroxysm. It may come on suddenly or it may be preceded by a day or few hours of prodromata, usually a general lassitude, headache, yawning, giddiness, and nausea, with a chilly sensation, but usually in the tertian types the chill is a decided shake. Following the chill we have the febrile stage of the paroxysm, with headache, aching of the limbs, bleeding from the nose, tinnitus aurium, or actual delirium. Various forms of rash may appear, especially and most commonly urticaria. After several hours the fever begins to subside and then we have the sweating stage; it may be more or less severe according to the severity of the paroxysm, frequently the patient is drenched. Following this stage we have the remission which continues until another cycle of development is completed. Where the fever is continuous, with slight remission, the sweating and chill may be so slight as not to be seen, the paroxysms merging into each other with such regularity that we have successive changes going on at the same time.

The principal forms of fever that we have in these autumnal fevers are the tertian, remittent, the estivo autumnal fever, and the enteric, the latter depending on another variety of organism for its source.

Now as to the modes of making a diagnosis in the malarial types: Frequent and skillful use of the microscope is the most important addition to the physician's armamentarium he can have, for without it at the present day he is like unto the mariner without a compass to guide him through the troubled waters. To use the microscope with success in making a diagnosis in these fevers, one must make himself thoroughly familiar first with normal blood before he can distinguish the pigmented parasite of malaria. The best way to examine the blood for the parasite of malaria is the fresh blood at the bedside of the infected individual, as in this way we can examine the parasite while still living. It is easy to prepare the specimen though strict attention must be given as to cleanliness. First wash the cover-glasses and slides in soap and water, using square No. 1 cover-glasses and clear

slides; dry thoroughly and wrap in cotton until ready for use; bathe the part from which you wish to take the blood with alcohol; this will remove any epithelium cells or fatty matter that may be present. The blood may be taken from any part of the body, but the most convenient one is the lobe of the ear. The puncture may be made with a lancet, needle, or even a pin. Where the patient is a child or a very nervous or ill person, care should be taken that they do not witness this little operation, as a bad effect may result from it by the patient's fainting. Now as to the spreading of the blood on the slide: This is the most important thing in the whole procedure, it requires an experienced and skillful assistant or nurse. Having punctured the lobe of the ear, allow a few drops to escape while the nurse or an assistant rubs the slide vigorously with a piece of chamois skin; this must be done rapidly so as with friction to produce necessary heat. Have the slide held close to the ear and perfectly horizontal; a slight dipping one way or the other will cause your cover-glass to slide off and spoil the specimen; then touch the drop of blood on the ear with the cover-glass, always held in forceps, and at once place upon slide with the blood on the under side. If this has been done skillfully the blood will immediately spread out and all the corpuscles will lie flat and unaltered. Care should be taken that the cover-glass is not disturbed after it is placed on the slide or the specimen will be ruined.

If you wish to preserve the specimen for any length of time, vaseline placed around the edge of the cover-glass will preserve it for several hours. The specimen may be stained in the following manner: Place a drop of blood upon a cover-glass which is immediately placed upon another glass; if the covers be clean and dry the blood will immediately spread out between them; the cover-glasses are then drawn apart and allowed to dry; then place in absolute alcohol for a few hours until thoroughly hardened; then place in stain for a few minutes, wash in water, dry between filter paper and mount in balsam. Methylene blue is the favorite stain. The red corpuscles remain unstained while the parasites are of a clear blue color. Having discovered the parasite the diagnosis is clear. In the early part of the fever season the types are usually on the intermittent order, but as the season advances they become more continuous and we have the remittent type of malarial fever.

The Estivo-Autumnal Fever. This form of fever is always observed at the latter part of the season. While the diagnosis in the regularly

intermittent fever is usually simple, it can not be said to be so in the case of the irregular estivo-autumnal fever; as a remittent of continued temperature ensues, confusion with other fevers is common. It is most commonly confused with typhoid fever. Let us briefly consider the differential diagnosis between the two:

REMITTENT FEVER.

The onset is intermittent.

Remissions irregular.

Temperature may arrive at 104° F. or 105° F. at the end of first day.

Headache rare in the beginning, neuralgic in character, variable in its position and intensity.

Sclera subicteric from the beginning.

Dryness of the tongue; sordes upon the teeth are not marked.

Breath foul.

Delirium may come on early.

If there be pulmonary congestion the cough and symptoms come on suddenly.

Restlessness and anxiety.

Often a slight jaundice.

Herpes common.

No characteristic exanthem; urticaria most common.

Tympanites transient; ileocecal gurgling transient; diarrhea slight, though in some cases may be well marked but does not have character of that in typhoid fever.

No distinct course; may last for weeks.

Examination of blood shows malarial parasites and pigmented leucocytes present.

Fever disappears under the use of quinine.

Exists in endemic form, particularly in rural districts and small towns.

Hemorrhage not frequent, and then at irregular periods of the disease.

TYPHOID FEVER.

Onset gradual and progressive.

Remissions regular.

Temperature does not reach 104° F. before the third or fourth day.

Headache from the beginning, severe frontal, and sclera white.

In typhoid these symptoms well marked and progressive.

Breath has a peculiar mouse-like odor.

Delirium appears only when the disease is well pronounced.

Pulmonary congestion gradual and persistent.

Prostration and stupor.

No jaundice.

Herpes rare.

Characteristic roseola.

Tympanites and ileocecal gurgling appears slowly and well marked; diarrhea may or may not be present in the early stages; always in the later stages.

Has a characteristic course; and in the majority of cases a definite time.

Malarial parasites and pigment absent.

Fever is not affected by quinine.

Usually epidemic, prevailing mostly in the cities.

Hemorrhage frequent in the third week.

In these cases there is one thing that will always settle the question, that is the examination of the blood. These remittent types of fever are frequently termed typho-malarial fever. Much has been written on the subject of typho-malarial fever, favoring the theory that there

was a combination of the typhoid and malarial poison which produced the continued fever. With the more modern methods of diagnosis and advanced knowledge of the nature of both typhoid and malarial fevers, we now know that no such conditions exist; these cases are either typhoid or malarial. The term typho-malarial is incorrect, misleading, gives rise to confusion, and should not be used, for there is no such disease.

Pursuant to the writing of this paper, I sent out letters to a number of physicians in different parts of the State, making inquiry as to the number of malarial and typhoid fever cases they had had during the past five years. Out of over eighteen hundred cases reported, there were scarcely more than one hundred cases of typhoid fever, the remainder being malarial and typho-malarial. As these cases were reported from outside of the larger cities, I think I am safe in saying that the vast majority of them were of malarial origin. That typhoid fever exists in epidemic form in the larger cities no one can question, but in the rural districts and smaller towns I believe typhoid fever to be a rare disease unless transmitted from an infected area by an infected individual. Cases arising spontaneously in the country, where there is pure water and a case has never existed before, I believe to be almost an impossibility. However, in these cases an examination of the blood will settle the question. Where the parasite is seen inside the red corpuscles the patient has intermittent fever. Where the crescents and elongated masses are found, they have some form of remittent fever.

Having determined as to the form of fever, the treatment will suggest itself. In the malarial types we have a specific in quinine. The time and manner in which it is given is very important. The drug may be given (1) by the mouth, (2) hypodermically, (3) intravenously, (4) by unction, (5) by the rectum.

The quinine should be in solution in the blood at the time of the setting free of the fresh parasites, both before and after the paroxysm. Various drugs have been tried, but none are so efficacious as quinine. Complications and sequelæ call for treatment according to the conditions present. In the severe remittent types of malaria it is best to give the quinine either hypodermically or intravenously, as the severity of the case is frequently such that immediate effect is desired. For this purpose the bimuriate of quinine is the best; the solution can be made so that 15 m. represents $7\frac{1}{2}$ grs. of quinine. The bisulphate may be used; it is soluble in ten parts of water. Intravenous administration

of quinine is the only treatment in the severe pernicious cases. When the bimuriate of quinine is used the solution should be perfectly clear and warm. Apply tourniquet to forearm; use strict aseptic precautions in the preparation of the arm and instrument; then with a Pravaz needle inject from below upward into the vein—always select a small one in order to avoid hemorrhage afterward; after withdrawing the needle close wound with collodion. The rectal administration of quinine is unsatisfactory and should not be used, as in this way the amount of quinine absorbed is not sufficient to have any marked effect. The one object to bear in mind is to have the quinine in the blood when the parasite is fresh in the blood as a segmenting body.

PARIS, KY.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Meeting of October 15, 1897. Section in Orthopedic Surgery.

Congenital Absence of the Radius. Abstract of a paper read by Dr. H. L. Taylor. The absence or imperfect development of the radius in the newborn causes the appearance of club-hand from dislocation of the carpus to the radial side. Case 1: Girl, five weeks old. Absence of the radii. Hand at right angles with forearm. Genuvarum. Mechanical treatment. The figure shows the absence of the radius and the ulna shortened, thickened and bent, also the improved position of the hand at fifteen months. Case 2: Girl, two weeks old. Absence of the right radius and both thumbs with their metacarpal bones. The deformity of the right hand was extreme. The patient lived but a few months. Case 3: Boy, five weeks old. Slight double radial club-hand with the radii abnormally small. The hands were kept in good position by leather splints. Case 4: Girl, two and one-half years old. Absent ulna and fourth and fifth digits with their metacarpal bones. Radius thickened, and bent toward the ulnar side. The hand usually turns toward the ulnar side but is sometimes held straight. The elbow has abnormal lateral mobility and hyperextension, as might be expected from absence of the ulna. Children with deficiencies of this kind are usually premature or still-born. If alive,

they seldom live many weeks. There are about two hundred recorded cases of absent fibula and one hundred of absent radius; but the deficiency shown in Case 4, absence of the ulna, is believed to be very rare. The dimples, furrows, and scar-like marks, vestiges perhaps of separated adhesions, support the theory that these defects are caused by the pressure of a contracted amnion. As rotation of the fetal limbs is said to begin about the fifth week, if the amnion exerts pressure from the fifth to the eighth week the radius and fibula may be blighted. If, on the other hand, the contraction takes place before the fifth week and before the rotation of the limbs, the ulna and tibia will suffer.



SKIAGRAPH OF THE LIMB IN CASE 1.

Operations, if performed, should be preceded by mechanical treatment. Contracted structures may be divided. Osteotomy may be followed by overcorrection and the ulna may in various ways be attached to the carpus in an improved position.

Dr. R. H. Sayre said that he had treated a patient affected with double congenital absence of the radius by manipulation, stretching, and retention in plaster of Paris. The hands had been brought into a fairly normal position, but the child died of cholera infantum when ten months old. In another case the ulna was so small that it hardly seemed feasible to split it for the reception of the carpus, as has been done in a reported case. He therefore fixed the ulna in a gap in the carpus.

Dr. A. H. Phelps said we could hardly use the term club-hand in speaking of congenital absence of the radius.

Dr. A. B. Judson said that there seemed to be no affection of the hand corresponding to congenital club-foot. So-called club-hand was caused by deficiencies of the skeleton, by injuries and diseases of the bones, by cicatricial contraction or by paralytic affections. There were also cases of club-foot originating in all these ways, but what we know as congenital club-foot is caused by factors which are apparently not operative in the upper extremity.

A Case of Traumatic Club-Hand. Dr. Taylor exhibited a girl, eight years old, a portion of whose radius had been resected for necrosis. The radius was, in consequence, much shorter than the ulna, and the result was that the hand was thrown toward the radial side and had the appearance of a club-hand.

Dr. Phelps said that, in a case of club-hand thus acquired, he would shorten the bone instead of cutting the tendons. Tendons when divided in their sheaths are apt to become adherent, while resection of the longer bone would in suitable cases bring the hand to a normal position.

Traumatic Club-Foot. Dr. Judson was reminded of a patient whose tibia had been shortened for disease of the bone. As the boy grew the fibula projected to such a degree that the patient could not walk. In such cases another operation was necessary to shorten the unaffected bone.

Dr. R. Whitman was reminded of a man whose tibia had been shortened by an operation when he was thirteen years old. The result was that when recently seen the leg was five inches short, and the foot had been forced into extreme varus by the relative overgrowth of the fibula. Bone reproduced to fill an interval left after resection did not grow. Final results after such operations, performed in childhood, were usually unsatisfactory.

Dr. R. H. Sayre cited a case which shows that reproduced bone did not cease to grow. The patient had been exhibited to this Section by Dr. L. A. Sayce. Four inches of the neck and head of the femur had been removed, and when the boy was twelve years old there was only about one fourth of an inch of shortening. In some of Dr. J. R. Wood's resections of the jaw the lower maxilla had been reproduced and had grown with the rest of the body.

Dr. Whitman said he referred to parallel bones of the extremities. Deformity was almost inevitable when a portion of one bone only is removed.

Dr. Phelps said that new bone had feeble circulation, grew less rapidly than normal bone, and becomes very hard, as was shown when one of two parallel long bones was reproduced.

Dr. R. H. Sayre said that the vicinity of a nutrient artery would probably influence the growth of new bone.

A Case of Helpless Club-Foot, from Deficiency of the Skeleton. Dr. R. H. Sayre described a case in which double club-foot was associated with congenital deficiency of both of the bones of the leg in a girl twelve years old. There was a bent and rudimentary fibula and a tibia, only an inch or so long, which stuck out like a little sprout under the skin. The foot was very much twisted and hung with a helpless flail-joint against the leg. Amputation at the knee was done.

Club-Foot Caused by Absence of the Fibula. Dr. Whitman exhibited a child, eight months old, in whom congenital absence of the fibula had caused talipes equino-valgus and anterior bowing of the tibia. The equinus had been extreme, but division of the tendo Achillis and the application of a brace had brought the foot to a right angle.

Dr. Taylor had seen eight or ten patients affected with congenital absence of the fibula. He said that in such a case it was very difficult to remove the lateral deformity by an operation. As there was no malleolus to support the foot it would return to its former position. Another interesting point was that the shortening found in infancy, in congenital absence of the fibula, would greatly increase with the growth of the child. In an adult, whose measurements he had taken for some years, there is a shortening of five or six inches. In a boy of twelve years the shortening was the same, and increasing. This progressive shortening took place in the forearm as it did in the leg.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, October 22, 1897, the President, Frank C. Wilson, M. D., in the chair.

1. *Trephining for Partial Imbecility.* Dr. A. M. Vance: This boy is seventeen years of age. His history was given in full at our meeting four weeks ago; but I will now give a brief resume of it. Two years ago, the patient being then comparatively speaking a normal boy, not brilliant or extraordinary, was struck by a bowlder on the right side of the head a little above and posterior to the ear. From that time he

*Stenographically reported for this journal by C. C. Mapes, Louisville, Ky.

has progressively lost intellection, and particularly the power to adequately express himself.

At the previous meeting we discussed the propriety of a trephine operation, and the consensus of opinion was that such operation was not only justifiable but strongly indicated. Four weeks ago last Wednesday I removed a button about one inch and a half in diameter, intending to replace it, but the periosteum slipped off and the button was therefore left out. The scalp was closed and healing is now perfect. I think the boy shows some improvement, particularly in his articulation of words, in his gait, and also in his ability to remain quiet. His mother also thinks he is much improved.

I would call your attention to the appearance of the skull, as shown by the button removed, it being very thick, soft, and mushy, the diploe filled with blood, seeming to represent a pathological condition. I will state that at the time of the operation a great quantity of cerebrospinal fluid escaped, and oozing of this fluid continued for twenty-four hours thereafter. Many ounces escaped. The dressing placed over the wound was saturated with this fluid. There was no pulsation at the point of trephining, and there is still none, though the scalp lies immediately upon the brain structures. Dr. Cheatham examined the boy's eyes, and says that he has atrophy of the optic nerves, and that his vision is about $\frac{3}{8}$.

2. *Cyst of the Mesentery.* This young man, aged twenty-eight years, I saw for the first time two weeks ago. The history is that for six weeks he had had pain in the stomach; that his suffering had been progressive, and when I saw him was so intense that he had been taking teaspoonful doses of laudanum to afford relief.

Upon examination I detected a large tumor just over the region of the stomach, which was very tense and tender under pressure. This tumor had been progressive for the last six weeks. He is a man who has been in the habit of taking his toddy every day, never, however, getting drunk. He was able to work up to two weeks ago.

I proposed that an exploratory incision be made which, I did two weeks ago at the Sts. Mary and Elizabeth's Hospital. Upon opening the abdominal wall I came down upon a tense tumor, the transverse colon lying across immediately under the incision. I detached the transverse colon and pulled it down out of harm's way, then introduced a very fine hypodermic needle and withdrew a barrel full of limpid fluid from the tumor behind. On removing the needle a little stream

of the same character of fluid spurted out three or four inches, from the pressure within, and this continued until I enlarged the opening and evacuated three pints of limpid liquid from a cyst. I take it that this cyst was situated postperitoneally and most likely sprang from the mesentery. In the material which was discharged I found some of the characteristics of dermoid growth, but no hair. The material looked like fibers of absorbent cotton matted together, and then broken into fragments. I cleansed the cyst as well as possible, then stitched the cyst wall to the abdominal parietes, and he has since grown progressively better. What the exact nature of the growth is I do not know, but believe it to be a postperitoneal cyst, most likely arising from the mesentery.

Discussion. Dr. J. G. Cecil: I remember seeing the first case when previously before this Society, and there appears to be considerable improvement in the boy's condition. He walks better, and there is more directness about his speech and manner. Certainly he has not been harmed by the operation.

The second case is interesting as a pathological curiosity. I do not know what it is, but it is certainly a curious condition.

Dr. T. S. Bullock: I have frequently seen Case 1 since the operation was performed, and there can be no question that the boy has markedly improved.

I saw the second patient operated upon. The character of the growth is puzzling, but the feature which particularly struck me was the enormous quantity of fluid which escaped at the time of the operation, and I understand it continued to discharge for several days thereafter. It was probably a cyst of the mesentery, the fluid was limpid, and seemed to be of the character usually found in mesenteric cysts. Dr. Vance's first thought was that the growth was a dermoid.

Dr. A. M. Cartledge: In regard to the first case: Sufficient time has not yet elapsed since the operation to determine whether there will be any permanent improvement.

The second case is extremely interesting. All these cystic formations in the epigastric region are especially difficult of diagnosis. I have seen two or three such cases, it being almost impossible to tell from what organ the tumor sprang. In this case I think the diagnosis is fairly clear; it can be made now, but probably could not have been made at the time, and there is no doubt in my mind that it was a pan-

creatic cyst. Every thing points to that diagnosis. The limpid, clear fluid corresponds to a cyst of the pancreas in the early stage; in the later stages the fluid becomes colored because of admixture of the pigments of the blood. These tumors sometimes grow very large. The growth in this case occupied the usual position of a pancreatic cyst, immediately in the center. The pancreas is partially retroperitoneal, and cases have been cited where a cyst of the pancreas developed apparently retroperitoneally and finally worked forward. The age of the patient is also significant; pancreatic cysts are prone to occur before the thirty-fifth year. Again, they almost always occur in men, which is another point of differentiation. Another point, the excoriation around the abdominal wound points to a pancreatic cyst. The exact nature of the growth might be ascertained by a careful examination of a specimen of the fluid removed.

Dr. H. A. Cottell: If the cyst was pancreatic, its contents probably would respond to the tests for trypsin, amylase, steapsin, etc. But I suppose when the sample was sent to the chemist he was not told that such a cyst was suspected. It is possible, however, that it might be a pancreatic cyst and still the contents not be pancreatic secretion, or the secretion itself might be modified in such manner that it would not respond to the ordinary tests. We have that condition of things frequently in cysts of the gall-bladder. The fluid of old distended gall-bladders often fails to show any trace of bile.

Dr. James Weir (of Owensboro, Ky.): The first case is especially interesting to me. I was struck with the remarkable appearance of this boy's skull—the general contour of the skull—which is distinctly Mongolian. I do not believe I have ever seen a European skull that carried out the characteristics of the Mongolian skull to such a degree as that of this boy. I will venture to assert, without any measurement, that his cephalic index would reach as high as ninety. It would be hazardous to advance an opinion as to the ultimate improvement in his condition. I know nothing about the character of the injury received, and above all know nothing about the previous intellectuality of the child. But from my casual observation I believe his improvement will not progress very far from what it is at the present time. It would make an exceedingly interesting psychological study to determine how far the patient's mental faculties have been injured by the blow he received, to make a comparative study as to his motions, will-power, intellect, etc.

Dr. A. M. Vance: Referring more especially to Dr. Cartledge's remarks, I think the secretions from almost any wound will bring about redness and slight excoriation, such as exists on the abdomen of the second patient presented. In this case it is probably due to iodoform; we know that this agent in some cases will produce a distinct dermatitis very quickly which may last for some time. Dr. Bullitt examined a specimen of the fluid evacuated from the cyst, and was unable to determine the nature of it. We discussed the pancreatic origin of the cyst at the time of the operation, and finally decided that it must have sprung from the mesentery; it was unquestionably post-peritoneal. The peritoneal covering was directly over the cyst.

As to the result of the trephining operation I feel sure the boy has improved somewhat, but am inclined to agree with Dr. Weir that more than likely the improvement will extend only so far. He was regarded as an average boy up to the fifteenth year, when he was struck with the bowlder; he attended the public school and was in what they call the fourth-reader grade. The blow dazed him, but he was not rendered entirely unconscious though quite a large wound was made,

Small Ovarian Cystoma. Dr. Turner Anderson: I have here a specimen of a small ovarian cystoma, and present it simply because of the smallness of its size. It is a typical ovarian cyst. The patient was operated upon at the opening of the gynecological clinic of the University of Louisville about a month ago, and has made an uninterrupted recovery. There were no untoward symptoms following the operation. The abdomen was closed by the most modern approved method, viz., by means of buried silver wire sutures. The patient was returned to the amphitheater on the fifth day after the operation; on the seventh day she sat up; on the tenth day her curiosity got the better of her and she concluded to inspect the building; she walked through the corridors, through the laboratories, etc., and on the twelfth day went home. She made a very quick recovery, but I do not present the case as a record breaker, as a medical friend has since told me of a patient, operated upon by abdominal section at the City Hospital, who left the institution on the third day, returning on the fifteenth day to have the sutures removed. I think the case I have reported worth recording, as having been properly and promptly diagnosticated and promptly operated upon while the tumor was very small; the result, as was expected, being prompt recovery.

Discussion. Dr. Wm. Cheatham: In this connection the following may be of interest: While recently in Cynthiana, Ky., I met Dr. Martin, who has not been in the practice of medicine for over twenty years. Dr. McDowell, whom you all know; insisted upon Dr. Martin's detailing to the gentlemen present a laparotomy which he did in 1841. The patient was a boy who had intestinal obstruction. He said that he made an incision from the umbilicus down to the pubes; finding it too short he went around the umbilicus and extended his incision, making it very long; he found the gut twisted and straightened it out; the gut was so distended that he could not get it back into the cavity, so he made an incision into the bowel and stripped it; then closed the opening in the gut, and also his abdominal incision by a very crude method and put the patient to bed. The boy made a good recovery, and is living to-day.

Vesical Calculus. Dr. A. M. Vance: This specimen is a vesical calculus removed two days ago from a man aged sixty-one years, who had suffered with it for five years. The history of his suffering was something terrible. It is the largest stone that I have ever removed. The operation was done by the suprapubic method, and the man has not had an untoward symptom. The stone is a very heavy one, weighing fourteen hundred grains. There is one point I desire to mention in doing a suprapubic cystotomy in a case of this kind: It is absolutely impossible by any method to lift the bladder up. It is not advisable to introduce a rectal bag, and the introduction of water into the bladder through the penis has no effect upon the bladder containing such a heavy weight. In this case I had to work fully four inches from the surface.

Discussion. Dr. W. O. Roberts: With the patient in the Trendelenburg position there is no necessity of using a rectal bag; we have no trouble getting down to the bladder, and had no trouble in getting into the bladder, as the intestines are all out of the pelvis. A few days ago I operated upon a very fleshy man by the suprapubic method for stone in the bladder with the patient in the Trendelenburg position. I have never had any trouble since this position has been used. I operated upon a man a year ago, removing a stone shaped like a biscuit, and, as Dr. Vance has said, we could not distend the bladder at all, but the stone could be felt in the bladder before it was opened, and there was no trouble in getting it out. I would like to ask Dr.

Vance whether he is going to make a permanent fistula in this case. In this connection I wish to state that two gentlemen upon whom I operated for stone, who had led catheter lives for two years before, and who had been unable to attend to business prior to the operation, have since worn with comfort hard rubber stems and are now active business men. One of them has worn a stem for two years and a half, and one a few months longer. Twice since the original operation there has been trouble with the bladder, and upon examination other stones have been found and removed through the suprapubic wound that already existed without any other operation.

Dr. A. M. Vance: In this case there seems to be no necessity for leaving the bladder open. Surgically the man is not over fifty, although he is actually sixty-one years of age. He has no enlargement of the prostate gland; the urethra is wide open, so I shall allow the suprapubic wound to close. In old men with enlarged prostates it is sometimes best to insert a permanent hard rubber stem.

An Atypical Case of Appendicitis. Dr. L. S. McMurtry: I have a specimen here which illustrates one feature of appendicitis that has interested me for some time. The specimen has become shrunken and hardened by the preserving fluid, but will demonstrate the point I desire to make. The history of the case is briefly this: A young girl, aged eighteen years, had several sharp attacks of pelvic peritonitis. A diagnosis of appendicitis was made by her physician. A second attack supervened which was considered to be deeper in the pelvis, connected with the uterus and its appendages, and with a detailed history of these attacks the case came into my hands with an attack of peritonitis.

I made an examination under ether and found the hymen intact; a digital examination disclosed the uterus fixed backward, and on the right side a mass that was characteristic of a suppurative hydrosalpinx; that is, the right uterine appendage was enlarged, fixed, and tender.

In making an incision in the median line I found the condition partially illustrated by this specimen. The uterus was fixed and there was a mass of exudate on the right side. The left uterine appendage was perfectly normal. The appendix was surrounded with a mass of adherent omentum which has been cut away, and you will observe from the specimen that the appendix is attached by its distal extremity along the appendiculo-ovarian ligament to the tube, and the tube has

become infected from the appendix. The appendix was in a state of active eruption, and you will observe that the fallopian tube is involved. The salpingitis is secondary to a primary appendicitis.

This case shows how often we may have complications in appendicitis with the uterine appendage of the right side. The patient made a prompt and perfect recovery.

Discussion. Dr. A. M. Vance: I happen to have had a similar case to the one reported by Dr. McMurtry. In this case two attacks had occurred, and upon examination two or three physicians had decided that there was some disease of the right uterine appendage. Upon making an incision in the median line I found an inflamed appendix, five inches long, adherent to the ovary and tube of that side with an active salpingitis. Both ovary and tube and the appendix were removed through the median incision and the woman made a good recovery. She was a married woman, however, and infection might have been due to some other causes.

Dr. A. M. Cartledge: It seems to be difficult to establish the relationship of the appendix to the tube as described by Dr. McMurtry in this case. It is possible of course that the appendix was primarily affected, that it became attached to and infected the tube, and that the first attacks were purely appendicitis. It is difficult, however, to understand how, with double peritoneal structures (the appendix and fallopian tube), such infection could take place, without there was first a rupture of the appendix into the tube or the rupture of an appendiceal abscess into the tube. The fact that this woman had the hymen intact does not preclude the possibility of her having tubercular salpingitis, the connection between the appendix and the tube being a coincidence rather than bearing any definite relation to the pathological condition present. The mere fact of the two organs being adherent would be of no material importance, unless the appendix had ruptured into the tube; the tube in this way might become infected from a primary appendicitis. I have several times seen the appendix attached by inflammatory adhesions to the right fallopian tube where the tube was not infected or otherwise involved, it simply being adherent to the appendix.

Gall-Stones. Dr. A. M. Cartledge: I saw last February a lady, aged forty-six years. At that time she was in profound jaundice, greatly emaciated, with a large tumor occupying the region of the gall-bladder,

extending very much lower than such tumors usually do, down to one inch below the line of the umbilicus on the right side. The tumor was exceedingly tender under pressure; the patient had fever, nausea, vomiting, and profound jaundice. Symptoms of suppuration were still present, and the woman was in an extreme condition.

I made an incision over this enlargement and found that the liver had been pulled downward; the gall-bladder was enlarged and tense; it was opened, and probably half a pint of purulent fluid and six gall-stones removed from the gall-bladder proper. On exploring the ducts a stone was found in the common duct; it was impacted in the common bile duct and could be distinctly felt. The woman's pulse was then 150 to the minute, and it was absolutely out of the question to think of prolonging the operation for a sufficient length of time to remove the stone from the common duct at that time. As she was in such an extreme condition, and unable to bear any further surgery, it was decided to establish a fistula by stitching the gall-bladder to the abdominal parietes and get the patient off the table as soon as possible, and subsequently, when she had improved sufficiently, to perform a secondary operation for removal of the stone from the common bile duct. This plan was followed. She was profoundly poisoned by bile, the secretions were perverted, and as a result improvement in her condition has been very slow. She remained in bed for six or eight weeks after this operation, then was able to get up and walk about, but was very weak. Bile was constantly discharged from the fistula, and the jaundice cleared up.

Last Monday, believing her condition was about as good as it would get under present circumstances, I operated upon the common bile duct. This presented unusual difficulties. An incision was made a little to the inner side from the fistula, my intention being not to disturb that. I found the liver very thin, extending quite down to the umbilicus; at the point where I came down upon the liver it was not more than half an inch in thickness, and at the lower border it was not thicker than paper. There was nothing left to do but to dissect up the gall-bladder, which had become markedly adherent, and carry it forward in order to get down to the common bile duct. This I did, and found the additional stone, which I show you, which had been recognized at the first operation, occupying about the middle of the common bile duct, probably a little nearer the duodenum than where the cystic joins the hepatic in forming the common duct. The stone was found

impacted or encysted, and an incision was made into the duct, the stone removed, and the duct sutured with fine catgut. The suturing was done so perfectly that I was tempted to drop the duct back without drainage, as I felt almost positive there would be no leakage, but, to be certain, a strand of gauze was passed down to secure drainage if needed.

The woman has done well with one exception: This morning, in removing the packing for the first time from the wound, a little bleeding was noticed from the small wound in the liver. This wound was not more than half an inch long, but the hemorrhage from it at the time was considerable and hard to control. There is no peritoneal involvement; all packing was removed from the wound and there has been no leakage. Bile has flowed very indifferently from the fistula although it is entirely open. I take it this is because of the swelling present. The bowels have moved twice since the secondary operation, the dejecta showing abundant evidence of bile, proving that the common duct is now pervious, and while there may be little bile coming from the fistula there has been no further jaundice, so I believe the common duct is doing all the work in carrying bile into the intestinal canal.

This is the fifth day since the secondary operation. The pulse is 110, and the patient is in good condition, so I take it that recovery is fairly well assured.

This is the second operation I have done upon the common bile duct. The first case was fatal four days after the operation. The patient was a woman who had been profoundly jaundiced for two years, and she died with a grumous oozing from all the cut structures, the connective tissue, gall-bladder, etc.—she simply oozed herself to death from the capillaries. It was evidently due to the constitutional condition or cholemia, although the patient got out of bed and walked across the room on the third day after the operation, while the nurse was absent for a moment. Death took place the following day.

I want to say a word in regard to operating upon the common duct, and emphasize something which I did not observe in my first case, which was followed in the case reported to-night, and a point that may be of advantage to surgeons who attempt this operation in future, viz., there is a great difference after incising the gastro-hepatic fold of the peritoneum freely, you would be astonished to see how much it allows the duct to come forward; not alone does it protect the common duct but it holds it in place; it also holds the portal vein and artery in position.

In this operation I did not see how I was going to get up to the duct to suture it. Having raised the gall-bladder as much as possible, having located the stone, incised the duct and removed it, I could not see how I would be able to suture the duct. With a double pair of forceps the hepatic fold of the peritoneum was grasped and nicked all the way around for one or two inches, then by dilating it a little I found the duct could be brought much nearer the surface of the wound, and suturing was comparatively easy, certainly being much facilitated by this procedure. I mention this, as suturing was exceedingly difficult in my first case, where the procedure outlined was not followed. The fold of the peritoneum in my first case was incised transversely with the duct, and in this way you do not get the relaxation that you do by a vertical incision of this fold.

Discussion. Dr. L. S. McMurtry: The case reported is especially interesting to me as I was with Dr. Cartledge when the first operation was performed. The diagnosis was somewhat obscure, as the doctor has stated. The patient was in a critical condition, consequently he exercised the very best surgical judgment in making a life-saving operation of the first one; indeed the whole management of the case was based upon sound judgment. The point of special interest in the operative management of such cases is what to do with the common bile duct after incising it and removing the stone. It is certainly wise to provide for drainage, and I think Dr. Cartledge acted very discreetly in putting a piece of gauze down over the incision in the duct so that if distension and leakage occurred there would be an outlet externally.

Dr. Louis Frank: Is it a fact that in cases of gall-stones with persistent and prolonged jaundice, continued hemorrhage of the character of which Dr. Cartledge speaks, and secondary hemorrhage, is to be feared; and, if so, what is the cause of it? I have noticed this statement in one or two articles upon the subject.

Dr. A. M. Cartledge (in answer to Dr. Frank): Hemorrhage seems to be very much feared in conditions of jaundice. A number of deaths have been reported from secondary hemorrhage after gall-bladder operations, where there seemed to be a want of coagulation of the blood, probably on account of the hepatic engorgement, the vessels being in a state of congestion favorable to continued oozing. Abbe reports a case where a patient nearly bled to death from the gall-bladder mucous

membrane. Just what change takes place in the blood which produces this condition I do not know, but it is probably associated with profound anemia—cases like hemophilia, leucocythemia, etc.

In lieu of the essay Dr. Ap Morgan Vance (exhibiting the specimen) made the following report upon a case of sacculated aneurism of the abdominal aorta:

"On May 1, 1897, I was asked by Dr. Gosnell to see Mr. F. A., aged forty-four, a bricklayer by trade. The doctor told me that he had had the patient under observation for several weeks, his great trouble being pain in both sacro-iliac regions and down both sciatic nerves. He told me of a spinal deformity, which the patient said came after a fall from a swing fourteen years before; he had, however, never lost any time from his work or paid much attention to it until one year before, when he was compelled to stop work and return from the South to his sister's home in this city. There was no history of syphilis. On stripping the patient, who was very tall and emaciated, I discovered a marked angular spinal deformity, with little compensatory curvature, having for its apex about the tenth or eleventh dorsal spine. At first glance I took it to be an old case of Potts' disease with the ordinary pressure pains in the great nerve trunks below. When, however, I placed one hand over the upper part of sternum and the other over the kyphosis I felt a tremendous pulsation. The doctor and I then made a very complete examination, and found what we believed to be a great aneurism of the lower aorta, which had not only melted away much of the chest wall but the spinal column itself. We of course concluded that nothing could be done but to palliate the man's sufferings and wait for an autopsy. He lived until October 16, 1897, dying by exhaustion, the dose of morphine *per diem* having reached twenty grains. Unfortunately the mechanical relationship of the diseased parts had been modified *post-mortem* by the straightening of the body, which we found emaciated to the last degree, with several bed-sores on the left side, due to the fact that the patient could not be moved for several days before death; *rigor mortis* was marked, and the large tumor occupying both sides of the dorsi-lumbar region could very easily be made out, that part lying to the left of the column being very large. With much difficulty Dr. Bullitt and I succeeded in dissecting out both of the sacs along with the column and subjacent structures. It proved on close inspection to be the largest sacculated aneurism I have ever seen, and illustrates how

wonderful are nature's conservative methods of protection. I have endeavored to preserve the specimen for your inspection to-night. The condition will speak for itself better than I can possibly describe it."

Discussion. Dr. J. A. Ouchterlony: The case is interesting, first because of the enormous size of the aneurism, and secondly because of its character. It seems to be really a double aneurism. Aneurisms of the abdominal aorta are very rare. Sir William Jenner says that when you examine an abdominal tumor, aneurism of the abdominal aorta is the last thing you ought to think about, because it is so rare. Among all the different aneurisms this, I believe, occurs in one only of nine cases. Usually the aneurism ruptures long before it attains such size as the one before us; the rule, I believe, is that when an aneurism of the abdominal aorta reaches about the size of an orange it ruptures. It is very seldom that one attains to any great magnitude because of the great force of the pulsation of the vessel.

There is no telling now exactly where this aneurism originated. As a rule the point of origin is between the diaphragm and the orifice of the superior mesenteric artery, and on account of its deep situation, covered as it is by the overlying structures, it gives rise to great difficulties in diagnosis. The great pain as well as the presence of the tumor causes it sometimes to be mistaken for cancer of the stomach. Quite a number of cases of this kind have occurred. The pain in this case must have been very severe. One curious thing that I have noticed is that the pain instead of being constant is paroxysmal, something that you would not expect, you would rather expect pain to be uninterrupted, and generally pain has been much more severe at night. Whether it is because of the patient's assuming the recumbent posture during that period of the twenty-four hours I do not know. Of course when the tumor reaches such dimensions as in this case there is no difficulty in making the diagnosis. Ordinarily, however, in aneurisms of the abdominal aorta, where the tumor is small, neither pulsation nor bruit is of much avail; sometimes you do not hear any bruit, and in other cases the aneurism is lying so far underneath the structures that you can not elicit any pulsation. In such cases, however, the fact that the pain is not at all influenced by food, and that the tumor is not influenced by position, helps to differentiate it at all events from cancer of the stomach.

Dr. F. B. Simpson: Was not the aneurism due to a fall which the man sustained?

Dr. A. M. Vance: He lost no time from his work until one year before I saw him, that is about eighteen months ago. He had a fall, and claims that his back was hurt thereby, and that he had a little boss on it, but he kept on laying brick, not having at any time any severe pain. There must have been some local damage which served as a starting point for this aneurism.

Dr. W. O. Roberts: In this connection I desire to call your attention to the importance of the fact that if a man comes to you with a spinal curve, you should examine him for every thing else. I had a case once with a spinal curve, and upon examination I found the patient had a tumor, the exact nature of which I was uncertain about. It was a question to my mind whether it was an aneurism or a tumor resting on the artery. There was distinct bruit and pulsation. He grew steadily worse and soon afterward died. A *post-mortem* examination revealed a large sarcoma resting on the aorta which had produced caries of the vertebra. The patient was a boy seventeen years of age.

Dr. Gosnell (present by invitation): There is one point I would like to mention in regard to the injury: I learn from the family since the death of the patient that he claimed to have strained his back, or hurt himself, two and a half years ago, and since that time he had told them that his back had been giving him more or less trouble. He said he strained his back lifting a very heavy stone while at work. He had been able to do no work since a year ago last May, and during this time he had had intense pain in his back extending down the legs. I learn that even during the previous winter he had no work and was laid up most of the time with pain in his back, etc. He claimed that his back had troubled him more or less since two years ago last July. He also said that when he was lifting the large stone he felt or heard something pop in his back; whether this is true or not of course I do not know.

Dr. F. C. Simpson: It is my understanding that all aneurisms in this portion of the aorta are due to injuries of some kind; a blow or other injury. I believe that was the cause in the case which Dr. Vance has reported.

Dr. J. A. Ouchterlony: That would apply to persons of the pre-aneurismal age; in older persons, where there is an atheromatous condition of the vessels, there is no necessity for an injury to precede the development of an aneurism.

Dr. F. C. Wilson: In the cases of aneurism of the abdominal aorta that I have seen, the pain has been described by the patient as of a peculiar boring, lancinating character. The patient will often describe the pain as of a peculiar boring character, as if some one was boring into his back with an auger. I have seen more of these cases in the chest, aneurism of the thoracic aorta, than I have in the abdominal aorta.

Dr. John L. Howard: In this connection I desire to report a case that I saw at French Lick Springs this summer. A man, forty years of age, who had lead a very dissipated life, had an aneurism of the abdominal aorta, but the symptoms of which he first complained had no reference to this trouble, and I believe I was the first to discover it. The diagnosis had been made of cirrhosis of the liver, more from his habits than any thing else. He was emaciated, and had been suffering for a long time with pain in his back. On examination I found an immense aneurism of the abdominal aorta just above the bifurcation. I report it as being a case like the one reported by Dr. Vance, except in this case local injury was absolutely excluded.

Dr. F. C. Simpson: Is it not a fact that in elderly persons alcohol as well as syphilis may be the cause of aneurism in any situation?

JOHN MASON WILLIAMS, *Secretary.*

Reviews and Bibliography.

A System of Practical Therapeutics. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College. With illustrations. Vol. IV. 1062 pp. Philadelphia and New York: Lea Brothers & Co. 1897.

In reviewing a recent work on therapeutics it was spoken of as lacking perspective, for, although exhaustive, every thing was given the same prominence; and thus, unless the student has already experience, he is bewildered.

The aim of the author in this work is to avoid this very difficulty. In the preparation of this volume the editor has kept in mind the fact that it must bring to the reader the personal methods of its various contributors rather than discuss every plan of treatment which has been introduced, whether commonly employed or not. He rightly says, "Bare suggestions that this drug or that be given in the presence of certain conditions is not what the practicing physician wants. He desires definite instructions as

to its dosage and its prescription, and he wishes to know how the author himself would use the remedies he commends if he were at the bedside.

A wise design, most assuredly; and now if only the author himself had something like a sure guide at the bedside! We run over this the best planned therapeutic work of the century in our humble opinion, and edited by one who stands certainly in the first rank.

A similar work less than a decade ago would have contained the names of many medicaments—let us not say remedies—whose efficacy was so strongly asserted as to make it seem like impugning the integrity of the reporters to doubt it. In this volume they are not once named. Who would have thought, ten years ago, that a leading text-book on therapeutics could by this time be written without the word antipyrine between its covers, and corrosive sublimate scarce if at all referred to. Before the astronomer looks among the stars he tries his instruments, and then he tests himself to ascertain the “personal equation.” Would it not be well for the therapist to test first himself and try to ascertain his grade of gullibility before making tests and reports of the action of medicine? One year of honest work and frank and unbiased report would set the practice of medicine forward more than half a century of such work as we have had. But it does not seem to belong to poor human nature to report its failures.

The contributors to this volume are Drs. James M. Anders, Thomas G. Ashton, Simon Baruch, William T. Belfield, Joseph Collins, Nathan S. Davis, jr., Francis X. Dercum, Joseph Eichberg, George R. Fowler, H. A. Hare, Henry P. Frederick, James B. Herrick, E. Fletcher Ingalls, William W. Johnson, Kyle D. Braden, Martin Edwards, Joseph M. Mathews, Andrew J. McCosh, S. J. Meltzer, E. E. Montgomery, William H. Park, Hugh T. Patrick, S. MacCuen Smith, Edwin S. Solly, Henry W. Stelwagon, Ralph Stockman, and Casey A. Wood. Certainly a goodly list. D. T. S.

A Text-Book of Diseases of Women. By CHARLES B. PENROSE, M. D., Ph. D., Professor of Gynecology in the University of Pennsylvania; Surgeon to the Gynecean Hospital, Philadelphia. Illustrated. 529 pp. Price, \$3.50 net. Philadelphia: W. B. Saunders. 1897.

The preface of Dr. Penrose's book is accurately indicative of its scope and contents. “I have,” says the author, “written this book for the medical student. I have attempted to present the best teaching of modern gynecology, untrammelled by antiquated theories or methods of treatment. I have, in most instances, recommended but one plan of treatment for each disease, hoping in this way to avoid confusing the student or the physician who consults the book for practical guidance. I have, as a rule, omitted all facts of anatomy, physiology, and pathology, which may be found in the general text-books on these subjects. Such facts have been mentioned in detail only when it seemed important for elucidation of the subject, or when there were certain points in the pathology that were peculiar to the diseases under consideration.”

While from the conservative standpoint of probably a majority of physicians Professor Penrose might seem to inculcate a too ready resort to operative procedures, those who are convinced of the correctness of his position in these matters would look in vain for a guide more easily followed. The style is remarkably clear and flowing, even vivid, and the writer speaks always "as one having authority."

The objections referred to can be brought to only a few operations, but more especially to the radical operation for fibroid tumors. The most authentic reports of these operations give a percentage of deaths that beyond all doubt cuts the average life of those who are operated on to a lower rate than of those who are not. Those who survive doubtless have greater comfort, and the question is, shall the patient have the chance of the bettered condition promised with the alternative of a fatal outcome?

Probably no better rule will ever be devised than to leave the decision of capital operations to the patient after all the conditions and probabilities of the case have been fairly laid before her. But the surgeon should be frank, truthful, and candid. On the whole, if asked by a student what text-book on diseases of women to procure, we know of none to be recommended above this text-book of Professor Penrose.

D. T. S.

Reference-Book of Practical Therapeutics. By Various Authors. Edited by FRANK P. FOSTER, M. D., Editor of the New York Medical Journal and of Foster's Encyclopedic Dictionary. In two volumes. Volume II. 618 pp. New York: D. Appleton & Co. 1897.

The writers contributing to this volume are Drs. Samuel Treat Armstrong, Samuel M. Brickner, Edward Bennett Bronson, William B. Coley, Floyd A. Crandall, Matthias Lanckton Foster, Arpad G. Gerster, Henry A. Griffin, Charles Jewett, Howard Lilienthal, George L. Peabody, Frederick Peterson, and Charles Rice, of Greater New York; Jeremiah T. Eskridge, of Denver; Austin O. Molley, Washington; Samuel O. L. Potter, San Francisco; Solomon Solis-Cohen, Philadelphia, and James T. Whittaker, of Cincinnati.

To a person at all willing to risk his own judgment in the selection of remedies after he has had laid before him a classified list absolutely exhaustive, as far as present knowledge goes, this work must be most welcome. With index and cross-index covering both the field of pathology as far as the names and phases of disease are concerned and therapeutics, the physician can get at any of the remedies he may desire with the least possible trouble. Most of the writers contributing to the book have already won high distinction as authors and masters of a high class of style as well as large and accurate knowledge, while, if any thing was faulty on the part of the others, it has been obliterated by the classic touch of the gifted editor.

Like the first volume it may be said of this that there is scarcely a line of waste in the entire volumes. As indicated at first there is absence of perspective. Each subject is treated independently, and the reader must

from these separate descriptions decide for himself which he is to use. Of the properties of drugs and their application apparently nothing is left to be desired of the knowledge of to-day.

D. T. S.

Schafer's Course of Practical Histology. By EDWARD SCHAFER, LL. D., F. R. S., Jodrell Professor of Physiology in University College, London. Second edition. 12mo, 307 pages, 59 engravings; cloth, \$2.25. Philadelphia and New York: Lea Brothers & Co. 1897.

Students of histology, who have learned to prize so highly Professor Schafer's *Essentials of Histology*, will be delighted with the appearance of this additional contribution from that eminent authority.

The aim of this work is eminently practical, being designed to afford those engaged in the study of histology plain and intelligible directions for the suitable preparation of the animal tissues, with the object of either immediate study or their preservation as specimens for future reference. The aim throughout has been to assist the student to carry on histological work independently of the constant presence of a teacher.

The author has given only methods proved by his own experience. The microscope is also described as far as necessary for a full understanding of its workings. The whole subject is presented in the most interesting manner, and the hand of the thoughtful teacher appears on every page.

D. T. S.

The Diseases of Women. A Hand-book for the Student and Practitioner. By J. BLAND SUTTON, F. R. C. S., Eng., Surgeon to the Chelsea Hospital for Women, Assistant Surgeon Middlesex Hospital, London, and ARTHUR E. GILES, M. D., B. Sc., Lond., F. R. C. S., Edin., Assistant Surgeon Chelsea Hospital, London. With one hundred and fifteen illustrations. 436 pp. Price, \$2.50 net. Philadelphia: W. B. Saunders. 1897.

The authors announce it as their aim in this book to relate facts and describe methods belonging to the science and art of gynecology in such a way as may be useful to students for examination purposes, and enable them to practice this department of surgery with advantage to their patients and with satisfaction to themselves.

The guarantee of the book, however, stands first in the fame of its authors, for, coming from such a source, it could not be less than authoritative. In its clear, direct description of diseases and their treatment and the accuracy and completeness of the abundant illustrations, aided also by the attractive character of the letter-press, the student should lack nothing to guide him to a fulfillment of the author's expressed wishes.

D. T. S.

Manual of Static Electricity in X-Ray and Therapeutic Uses. By S. H. MONELL, M. D., Founder and Chief Instructor of the Brooklyn Post-Graduate School of Clinical Electro-Therapeutics and Roentgen Photography, etc. Illustrated. 614 pp.

In this volume the author aims to present in a concise and intelligible form the essential facts relating to static electricity and its successful application to the treatment of disease. It also gives full directions for operating the best type of static machines.

The author also states with much fullness his own clinical experience as well as that of others. He thinks the static machine has fallen into undeserved disrepute, and devotes extended effort to set it on a higher plane and bring it into greater approval. There will still be those who will regard the author and his work from very different points of view and will come to very different conclusions. There are those who will hail his successes as an inspiration to further efforts and fuller confidence in this character of therapeutic procedure, and still others who would be as well satisfied with a record of experiences at Lourdes or some other shrines of superstition.

It is certain that the X-Ray has so far accomplished nothing in therapeutics except by aiding in the discovery of foreign bodies. We commend the work to those of the proper faith as containing well-nigh all they may desire to find in such a volume.

D. T. S.

Abstracts and Selections.

A CASE OF LEAD-POISONING COMPLICATED BY ULCERATIVE COLITIS.—I have thought this case worthy of publication on account of the extreme rarity of the complication.

A man, aged thirty-seven years, was admitted to the Tottenham Hospital on August 14, 1896, with the following history. He was a painter, but had been out of work, with the exception of the last few days, for some time. About seven years before he had suffered from an attack of lead colic, but with that exception he had been, apart from occasional attacks of "gout," a healthy man. He came to Tottenham Hospital complaining of severe abdominal pain and constipation, which began on August 11th, three days previously. There was much sickness on the 12th, and the pain continued with exacerbations till the day he was admitted. He had then walked up to the hospital, a distance of four miles, accompanied by a friend, and he arrived in a very collapsed state. There had been no action of the bowels since the 10th.

Condition on Admission. The patient was a poorly nourished man, very anemic, with a sallow complexion. He seemed to be in a collapsed condition; the pupils were equal, contracted, and with slight reaction to light. The teeth were much decayed; the gums of the lower incisors and canines had retracted, presenting a marked blue line, and there was a brown fur on the dorsum of the tongue. The grasp of the hands was good and equal, and there were no signs of extensor paralysis. The knee-jerks were present. The pulse (after recovery from the collapse) was 100 and of good tension, and the artery was not rigid. The heart was natural. The abdomen was slightly disintended; it moved freely on respiration. General pain, not

relieved by pressure, was present, but no tender spot was noted. The urine was of specific gravity 1020, of acid reaction, and with a slight cloud of albumin.

Treatment. At first a saline purge was administered with iodide of potassium, and on the same night (August 14th) the bowels were opened three times, the motion on the third occasion consisting chiefly of blood. The pain was not relieved by the evacuations. On the 15th the patient had eight actions, consisting of slime with shreds of mucous membrane and a little blood. The pain in the abdomen continued to be severe, and there was some tenderness over the ascending colon. Belladonna fomentations were applied, but were discontinued as pressure seemed to increase the pain. The hemorrhage and diarrhea continued throughout the 16th, the abdominal pain had ceased, but tenderness was still present over the ascending colon. During the day he passed only nine ounces of urine, which had the same characters as before. The hemorrhage then ceased, with the exception of two small clots on the 20th, but the diarrhea (from six to seven actions a day, each action containing some mucous shreds) continued till the evening of the 26th, when he had a large hemorrhage and, becoming collapsed, died at noon on the 27th. During the six days preceding his decease the patient's condition became gradually weaker, and he was at times delirious, but usually comatose. He could always be roused from the coma by asking questions, and would answer sensibly, then almost at once relapse into his former condition. While delirious he would mutter to himself, and occasionally groan and cry out, but he never complained of any localized pain. Throughout the illness the temperature only rose on three occasions as high as 99.6° F. and was never below 98°, except on admission, when he was collapsed, and at the time of and following the final hemorrhage, when it fell to 97°.

Necropsy. The lungs were emphysematous and somewhat congested. The heart and stomach were natural. The small intestines contained a quantity of very offensive fecal matter. The lower end of the ileum was much congested and contained shallow ulcerated patches not confined to the solitary follicles. The whole of the large intestine presented the characters of an ulcerative colitis. The mucous membrane, which was dark colored, was stripped off the bowel in places and hung in shreds. There were no signs of perforation, but the ascending colon was firmly adherent to the capsule of the right kidney. There was no general peritonitis. The liver was small and cirrhotic. The spleen was small and densely hard. The capsule of the kidneys peeled and there were no signs of cirrhosis.

Remarks. The rarity of the complication is shown by the omission of all mention of it in the great majority of text-books. The first account I find is that given by Tanquerel des Planches, in which he says: "Lead colic may be concomitant not only with other lead diseases, but with maladies arising from causes unconnected with lead preparations. These complica-

tions exist independently of colic; they are not in the least influenced by the treatment, yet they modify the character of the colic." The complications mentioned are gastritis, enteritis, peritonitis, and dysentery. In a short paragraph in which this writer discusses enteritis as a complication he draws attention to "the swollen abdomen" and to the facts that "pain tends to generalize itself, but is often more acute in parts, constant, increased by pressure, becoming more severe at times," and that "evacuations give no relief." All these points are well brought out in the case above described, and it will be noticed that colic and constipation, two of the most constant symptoms of lead poisoning, were to a great extent obscured by the colitis to which is attributable the localized pain and diarrhea. Under the head of "Lead Poisoning" Osler mentions a case with similar features to the present one, which came under his care in the Philadelphia Hospital. The patient "had vomiting, constipation at first, afterward severe diarrhea and melena, with distension and tenderness of the abdomen. There were albumin and tube-casts in the urine. The temperature was usually subnormal. Death occurred at the end of the second week. There was found the most intense entero-colitis, with hemorrhages and exudation. These acute forms develop more frequently in persons recently exposed." With regard to the causation of the colitis, in spite of Tanquerel's statement above referred to, that the malady arises from causes unconnected with lead preparations, it seems possible that, in some cases at least, lead may be the direct cause. Dr. Oliver says: "It seems to me as if lead first irritated the sympathetic and intestinal ganglia; this is followed by spasm of portions of intestines and arteries." And again: "How far a degree of heightened arterial tension, associated from time to time with the minor attacks of pain in the abdomen and the constipation which so usually accompanies it, aid in developing anemia or cachexia by causing malnutrition through impeded flow of blood it is impossible to say." Arguing on these lines, then, is it not possible to consider the colitis due to malnutrition of the mucous membrane of the colon, caused by impeded flow of blood through the vessels to the affected parts? Another possible explanation is that lead may in some cases have an action on the trophic centers of the cord governing this area, for such centers must assuredly exist. In this connection Dr. Oliver mentions Oeller's case of lead-palsy, where hyperemia and atrophy of the ganglion cells in the anterior cornua of the gray matter of the cord were demonstrated microscopically.—*Dr. H. W. Carson in the Lancet, September 4, 1897.*

CANCER OF STOMACH.—To control the vomiting (Albert Robin):

| | | |
|---|----------------------------------|------------|
| R | Picrotoxin, | 0.05 cgm.; |
| | Morph. hydroch., | 0.05 cgm.; |
| | Atropin. sulph. neut., | 0.01 cgm.; |
| | Aq. laurocerasi, | 20 gm. |

Sig: Five to eight drops before meals.

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THE ABUSE OF THE OBSTETRIC FORCEPS.

The learned editor of the Boston Medical and Surgical Journal (11th instant) calls a halt upon the practice of that branch of meddlesome midwifery which is represented by the frequent and indiscriminate use of the forceps. And in making the arraignment he marshals statistics with consummate skill and deadly execution.

For instance, Dewees (1826) protests against the frequent use of the instrument, and declares that in his own practice he had not employed it oftener than once in three hundred and fifty cases. Davis held that the forceps should be used not more than once in three hundred or at most two hundred and fifty cases. He found fault with Burns's approval of once in fifty-three cases, considering it four hundred per cent too great. Denman (1807) laid down a rule "that the head of the child shall have rested for six hours as low as the perineum." Churchill (1863) approves Denman's rule, but qualifies it by advising the use of the forceps "when the second stage has lasted so long as to prove the inadequacy of the natural powers, or at all events so soon as the symptoms of a prolonged second stage make their appearance (quick pulse, dry tongue, fever, etc.). Collins (1835) in 16,414 deliveries found only fourteen which called for forceps. This spirit of conservatism was set at naught by Swayne (1876), who approved the practice of applying forceps in the first stage of labor. Denman's injunction, "that the

first stage of labor must be completed before we think of applying the forceps," is not to be followed in this day of anesthetics and surgical hustle. The Krupp guns of the defense are furnished by Dr. W. Jepp Sinclair, who read a paper before the Section of Obstetrics and Gynecology of the British Medical Association September 25, 1897.

This writer says:

Midwifery practice of the present day, especially among the working classes of England, is something to wonder at and deplore. The young practitioner sees a woman suffering under the pangs of labor; he can relieve these by anesthetics; normal labor is a process which requires time; the practitioner does not like waiting, and he has appliances by which he can abridge the process of normal labor; he knows that he may produce injuries, but these are in his eyes trifling compared with the injuries which he has been accustomed to see treated successfully by the surgeon with the aid of anesthetics, and a laceration can always be sutured if it appears to be of sufficient importance. Why, therefore, should he permit suffering to his patient and waste his own time? He does not know enough of gynecological practice to be impressed with the importance of a laceration of the cervix or vagina, or a dislocation of the uterus, that is to say, of the remoter consequences of his well-meant interference. The current practice is vastly too meddlesome and mischievous and some reform is urgently required.

In many of the manufacturing towns the proportion of cases in which the forceps is applied amounts to 25 or 30 per cent and even more. The highest figure mentioned is 75 per cent. It is a common practice for physicians in the case of multipara to allow half an hour to an hour for second stage of labor, and if the case does not show signs of immediate spontaneous completion, to put on forceps. Among the gynecological cases at the Manchester Southern Hospital, it is by no means a rare thing to find a young woman suffering from a dislocation of the uterus and lacerations of the cervix and perineum whose first labor was terminated by forceps within four to six hours of the onset of regular pains. In contrast with the high percentage of forceps cases in the obstetrical practice of many of his *confreres*, may be cited the relatively low percentage at the Manchester Maternity Hospital: 9 per cent among the in-patients, 1.4 per cent among the out-patients. The higher percentage of the in-patients is explained by the fact that the hospital beds are understood to be retained for cases of difficulty and danger; hence a large proportion of the women admitted have a history of difficult or operative labor in the past. The statistics of Bela-Von-Walla comprehending cases delivered with forceps in the University Klinik for Obstetrics at Buda-Pesth, from September 1, 1882, to December 31, 1895, give a proportion of 1.04 per cent over the whole time, and in 1895 of only 0.32 per cent.

The statistics of Dresden Hospital (Wahl) show that during six years (1889-1895) 9,061 women were delivered, and that the forceps was used in two hundred and thirty-two cases, that is two-fifths per cent, and in this great number the instruments were applied at the brim of the pelvis only seventeen times. "It is insisted at this hospital that *the cervix shall be completely dilated, the membranes ruptured and the sagittal suture as nearly as possible in the antero-posterior diameter of the pelvic outlet.*" The final indication for resorting to the forceps was always danger to the mother, to the child or to both, and three to four hours was the period allowed for the second stage of labor.

That the forceps does more injury than is generally supposed is proved by the following statistics:

Munchmeyer reports 85 per cent of lacerations, including all tears both trifling and severe. Schmidt found 84.6 per cent of lacerations of the vagina and perineum, two of the latter complete in 132 forceps operations at the Klinik of Basel. Wahl, at Dresden, found 81.4 per cent of injuries in 342 cases. There were lacerations of the cervix which required immediate suturing to stop hemorrhage, and there were six complete lacerations of the perineum. Only 18 per cent of the cases were uninjured.

Munchmeyer says that "the application of the forceps is the bloodiest operation in medical practice." VonWinckel says that "even in the hands of an experienced operator the forceps is an instrument by no means void of danger." In the opinion of Sinclair we have replaced the one great injury of parturition of former generations—vesico-vaginal fistula—by a host of others, lacerations (major and minor) displacements, parametritis, cicatrization, and many other acute and subacute pathological conditions.

In view of these cogent statements and conclusions, which come to us with the force of a mathematical demonstration, it would be well for the average doctor (and that means every physician who is not a master in obstetrics) to take counsel before submitting a woman to the ordeal of forceps delivery. Or, if counsel is not available, let him be certain that the indications for instrumental interference do not come short of the rules laid down by our best authorities. All juggling with the instruments for advertisement or display, or their employment as an economic or time-saving measure, is trifling with the issues of life itself, and should meet with universal and unqualified condemnation.

Notes and Queries.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.—This Association has just completed its seventh annual meeting at Harrisburg, Pa., under the presidency of Dr. W. T. Bishop, of that city. The scientific business of the meeting embraced a wide range of subjects extending from committee reports on the standardizing apparatus for the medical use of electricity to wider consideration of the expenditure of electric energy in therapeutic applications and its special uses in various diseases.

• Among the subjects of a practical nature that were considered were the value of electricity in the uric-acid diathesis by Drs. Robert Newman and J. G. D. Davis of New York. Goitre and its treatment by electricity was considered by Dr. Caleb Brown, of Iowa, the chief point made being the easy curability of the earliest manifestations of this affection in young girls and the neglect of physicians in instituting treatment at this stage. An interesting point was raised by Dr. Coover, of Harrisburg, as to the value of electricity in impending heart failure. In the discussion it was brought out that the members present thought electrization of *any* nerve trunk, particularly the pneumogastric, unwise, but that any faradic brush battery, or even the severed wires of an alternating house-lighting current of 100 volts made to press lightly on the bare skin would act as a valuable stimulant by reflex action.

The most novel feature of the meeting was the presentation, by Dr. Massey, of Philadelphia, of a paper on a new treatment of cancerous growths, the essential element of which was the cataphoric injection of mercury, in a nascent condition of its oxychlorid, into the cancer in such massive doses as to cause a death of the cancer cells. It was claimed that this method permitted the minutest prolongations of the cancerous infiltration to be followed by the mercury-laden current, which caused death and absorption of cancer cells beyond the point where all the tissues were killed by the very strong current used.

A paper by Prof. Dolbear, of Tufts College, Boston, on "The Molecular Effects of Electricity," was most interesting to merely practical ears and was an invitation to wider views of the possible control that may be exerted by electric currents over normal and abnormal nutritive processes.

The list of new officers is as follows: President, Dr. C. R. Dickson, Toronto, Canada; Vice-Presidents, Dr. F. Schavori, Connecticut, and Dr. Caleb Brown, Iowa; Secretary, Dr. John Gerin, Auburn, N. Y.; Treasurer, Dr. R. J. Nunn, Savannah, Ga.; Executive Council, Drs. Robert Newman, W. J. Morton, W. J. Herdmann, W. T. Bishop, and G. Betton Massey.—*Journal of the American Medical Association.*

THE AERIAL TRANSMISSION OF TYPHOID FEVER.—Investigations in this direction, says Germano (*Zeitschrift für Hygiene und Infektionskrankheiten*, 1897; *Presse médicale*, July 28, 1897,) have been made in the following manner: A certain quantity of typhoid cultures in bouillon or agar were mixed either with the dust taken from the sick-room, with fine sand, with earth, or with the fecal matter of diarrhea, all of these substances having been previously sterilized. Each mixture was then distributed in three Petri boxes, one of which was placed in a damp room; another was left air-tight on a table in the laboratory, but, in order to obtain more rapid desiccation, the mass was uniformly distributed on the walls of the box with a sterilized glass rod. At various intervals as much as would lodge on a platinum loop was taken from each receptacle and sown on a proper medium.

These experiments proved that, in the earth and the dust, under the influence of slow desiccation, as in the second box, or accelerated desiccation as in the third box, the typhoid bacillus ordinarily succumbed at the end of twenty-four hours, and that, occasionally only, it still gave cultures in bouillon after having been in the air-tight box for two or three days. In the fecal matter, under the same conditions of desiccation, the life of the typhoid bacillus was much longer; on agar no cultures were obtained at the end of six days, but in bouillon the cultures could still be made at the end of twenty-five days. This difference is attributed by the author to the fact that it is very difficult to dry the typhoid bacillus in fecal matter. He says that, in any case, if typhoid fever is to be transmitted by the air, the desiccation of the bacilli in the fecal matter would have to be such that they would no longer be alive.

In another series of experiments the cultures were deposited on pieces of cloth and linen. In these conditions, in spite of the progressive desiccation in the boxes, the typhoid bacilli still preserved their vitality at the end of sixty days, and sometimes even longer. The author explained this fact by saying that the fibers of the tissues protected the bacilli against desiccation.

From all these experiments the author concludes that the doctrine of the transmission of typhoid fever by the air is scarcely admissible. In order that the air may carry particles to which the bacilli adhere, it is necessary that they should be found in a condition of desiccation which is scarcely compatible with the vitality of the bacillus. On the other hand, the danger of transmission by objects, such as clothing, wood, etc., soiled by the dejecta, is very real.—*New York Medical Journal*.

WHO INTRODUCED THE TERM "APPENDICITIS"?—In the Medical Record for January 23, 1897, page 142, Dr. Gerster, of New York, devotes nearly an entire column to an attempt to "abolish appendicitis;" and although he says he neither "knows nor cares" who is responsible for this "philological monstrosity," and "that the reckless ease with which the word was coined can not be excused by the difficulty or impossibility of

finding a better, more rational, and yet intelligible expression," and goes on to offer "scolecitis" as a substitute, the pages of the Medical Record fail to show that his suggestion has as yet met with any favor. It is more than probable that "appendicitis" has come to stay. In Mr. Christopher Heath's annual address before the Surgical Section of the British Medical Association recently, at Montreal, he said: "I do not know to whom we are indebted for the hybrid term appendicitis, but it did not appear in the index to the British Medical Journal before 1891."

The fact that the origin of this term was unknown to these two eminent surgeons led me to think that it was not very widely known that Dr. Reginald H. Fitz, of Harvard, is responsible for the term appendicitis. In the article on "Appendicitis," in the "Practice of Medicine," by H. C. Wood and R. H. Fitz, p. 876, is this statement:

"The importance of recognizing the vermiform appendix as the usual source of the inflammations in the right iliac fossa, whether designated iliac abscess, iliac phlegmon, typhlitis, perityphlitis, paratyphlitis, or typhlo-enteritis, led Fitz to offer the term appendicitis to indicate the primary disease whose results were so variously named. Despite the barbarism of the term, its practical importance has made it welcome."—*A. B. Ros-enberry, M. D., in New York Medical Record.*

A BUREAU OF CLINICAL MEDICINE AND SURGERY.—There has been established at the Hall of the College of Physicians of Philadelphia, north-east corner of Thirteenth and Locust streets, a Bureau of Clinical Medicine and Surgery, having a central office with telephone connection, in charge of a clerk, whose duty it shall be to receive and post notices of the daily work in the various branches of surgery and medicine taking place at the different hospitals in the city. This is accomplished by notice to the bureau by postal card or telephone. By this means the numerous physicians who visit the city may be able to take advantage of the great clinical facilities offered by the hospitals of Philadelphia. A physician calling at the central bureau can thus ascertain what medical or surgical work may be going on during that day in any one of the different hospitals. The officers of the bureau are Roland G. Curtin, M. D., President; Henry R. Wharton, M. D., Secretary; Guy Hinsdale, M. D., Treasurer.—*Boston Medical and Surgical Journal.*

THE ANTIVIVISECTIONIST PLEDGE.—"I pledge to never knowingly employ a physician practising or upholding vivisection unless in case of immediate danger or death." The antivivisectionist is evidently as great a foe to grammar as she is to any other science.—*New York Medical Record.*

DIABETES MELLITUS (Vigier, Annual Univ. Med. Sci.):

R Lithii carbonat., gr. xxx;
 Sodii arseniat., gr. i;
 Ext. gentianæ, gr. xv.
 M. ft. massa et in pil. No. 20 div. Sig: One pill morning and evening.

Special Notices.

"GRIP."—C. A. Brice, A. M., M. D., Richmond, Va., Editor of the Southern Clinic, in writing upon the above subject, during an epidemic of la grippe, said:

"For the past four weeks or more we have met with five times as much grip as any thing else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved have been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism, hepatitis, and gastric congestions have been of far greater frequency, while in all, the nervous system has been seriously depressed.

"The fatalities from pneumonia, meningitis, and other complications have been fewer, showing plainly that we are gradually gaining an immunity from this zymotic invader. With each succeeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nervous sedatives, anodynes, and heart sustainers rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encourage action of skin and kidneys, with possibly minute doses of blue pill and quinine or calomel and salol. We have found much benefit from the use of antikamnia and salol in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from antikamnia and codeine. Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time."

JOS. WESLEY MALONE, M. D., Blythdale, Pa., says: I am so well pleased with Celerina that I can not refrain from citing several cases of interest. I prescribe it very frequently, and have never had it to fail yet. I used it in a case of chorea. The patient was a little girl, ten years old, suffering from an acute attack. The case had been given up by two physicians and was a very bad one. The usual remedies, phosphorus, arsenic, etc., had been used and had no great effect. I advised the attending physician, an old practitioner, and a good one too, to try Celerina. He did not take much to the idea, but after urging him he consented, and the first dose gave relief. From that time, the child got better, and in about four weeks was cured. It acted like a charm, and the old physician, who had never used it, was so well pleased that I am sure he will try it again. I have prescribed it in nervous prostration, and have yet to find it to fail. It is pleasant to take and produces no nauseating effects, as other remedies do when used for some time. I frequently prescribe it with Aletris Cordial, and it also goes well with Peacock's Bromides. I shall continue to prescribe it, and shall watch its merits closely.

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THE
AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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No. 12.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE AGENCY OF THE NERVOUS SYSTEM IN THE PRODUCTION OF DIGESTIVE DISORDERS; THEIR TREATMENT BY HEAT AND COLD OVER THE SPINE, AND OTHER REMEDIES.

BY BEVERLEY OLIVER KINNEAR, M. D.

Meeting a friend upon a street car a few days ago, of nervous temperament and not very powerful physique, he said to me: "I am just on my way to the funeral of a young relative of mine who accidentally shot himself; and I feel so dreadfully for his parents that my digestion is entirely upset; and this is the way any nervous shock or anxiety always affects me."

He was suffering from acidity of the stomach, with considerable distension from gas.

His experience is that of thousands of others, who, when affected unpleasantly through the mind, have the evidence of such suffering demonstrated by indigestion, diarrhea, or biliousness, and in some cases by constipation and the frequent passage of urine. We all are aware how a delicate woman will faint from mental or heart shock, her body become cold throughout, the pulse almost imperceptible, and all desire for food will vanish; and for days and weeks sometimes the system does not recover its tone.

Others will vomit upon receiving disagreeable intelligence, or when subject to fright or other shocks, and all these effects illustrate very clearly the reflex effect produced upon the stomach, liver, intestinal

tract, kidneys, and the general circulation by unpleasant mental impressions.

Upon the other hand it is well known how, even in severe illness, pleasant news will impress the system favorably, or the unexpected sight of a beloved friend, and recovery be thereby hastened. In people who are in their usual health, but subjected to anxiety or grief, let this cause be removed, and at once the wrinkles and frowns smoothe out, the face flushes, there is a renewed sense of vigor, and the system resumes its normal vigor and freshness. Injuries to the nervous system are often causes of chronic dyspepsia and other digestive trouble.

Blows upon the spine, while unfelt at first except locally, very often set up lasting digestive trouble, one of the most difficult forms to remedy; while falls upon the feet or buttocks will frequently so shock the nervous system as to interfere with the general nutrition thereafter very seriously.

In these examples we have the effects upon the nervous system realized as the cause of the digestive disorders, and traced very easily thereto; but what of digestive troubles which can not be lucidly followed as originating in the nervous centers, or that higher nerve center, the brain?

Unless there be organic trouble following acute disease in the organs or tissues as causes of such disorders, we believe, and can give some proof, that all functional dyspepsias and intestinal derangements are in large part due to abnormal action of the nerve centers, and that by treating the centers we can overcome the digestive derangement.

A very applicable case at this stage of our paper was that of a naturally excitable and somewhat delicate patient of ours, who, after long strain and overwork, was attacked by summer diarrhea and vomiting; all the usual remedies were tried for three days without any relief whatever; the patient's condition had become exceedingly alarming, and her weakness was so great that she could only speak in whispers, while no nourishment could be retained. After a consultation with a leading physician whom the family desired to see the case, with no gain to the patient; therefrom, as he felt convinced that nothing could save her; with the consent of the family and as a last resort we applied a spinal ice bag over the last four dorsal and the first three lumbar vertebræ, with immediate benefit. The vomiting soon ceased, and in twenty-four hours the diarrhea was also almost subdued, the

patient was taking small quantities of beef tea and milk frequently; and she had enjoyed several hours of refreshing sleep as well. At first the application was used one hour in every three, but at the end of twenty-four hours we found it sufficient to apply the bag one hour three times a day, and in about ten days the patient had quite recovered.

One peculiar feature of the attack, showing the effect of the mind upon the disease, was that there was a very loud door bell to the house in which she lived (a boarding-house), and every time the bell rang she would immediately have a movement of the bowels, so that in the latter part of her illness the bell had to be muffled.

We believe, as it has been proven by Claude Bernard, Brown-Sequard, and other physiologists that stimulation of cerebro-spinal nerves will increase the secretion of certain glands, and that histological anatomy has traced nerve terminals to the nuclei of the cells of various secreting organs; also, that cold over nerve centers will lessen glandular discharges: for these reasons we believe that diarrhea is directly due to hyperemia, and therefore excess of function of that portion of the spinal cord containing central nerve cells, issuing nerves to the secreting cells of the mucous glands of the intestine; the increased function of the centers, inducing hyperemia of the mucous secreting cells, and a larger discharge than in health. Every August, as the nights grow cool after warm days, the writer has a tendency to looseness of the bowels appear; and, judging from many years of experience previous to the use of the spinal ice bag, would have an attack of diarrhea of a severe form, were not the dorso-lumbar bag applied directly the tendency manifests itself. Used once or twice a day for a few days causes an entire subsidence of the symptoms.

In a large number of cases of acute diarrhea treated, the spinal ice bag has not failed to relieve, and several bad cases of chronic diarrhea have been completely cured by the treatment. Acute stomachic colic of the intestinal form can be speedily relieved by the use of the same application, the pain disappearing and the distension subsiding very quickly. Sometimes in ventral colic the distension is very great, due doubtless to contraction of the pyloric and cardiac orifices of the organ, and the pain almost unbearable; and it is pleasant to note the result of the cold spinal application, for within a few minutes the spasm of the orifices gives way, and the wind rushes up the esophagus and escapes by the mouth in great gulps, rapidly terminating the dis-

tension and pain. The cold over the motor centers, expelling the blood from them and lessening the strength of the nerve force issued to the circular fibers of the stomachic orifices, allows the fibers to expand and the wind to escape. Cold over the spine has also the effect of expanding contracted arteries; therefore in all those cases where the indigestion is due to a feeble circulation, with cool or cold extremities, the spinal ice bag, applied from the fourth cervical to the last lumbar vertebra will often work wonders, even in very chronic cases, by making a good circulation within the stomach, liver, pancreas, and bowel, thereby increasing the natural secretions, and aiding digestion and the assimilation of the food; and by adding to the flow of blood to all parts of the body it elevates the general temperature, makes more rapid metabolic changes, and restores the vigor of health.

After a railroad accident in 1888 we were troubled for three years with flatulent dyspepsia, which at times gave rise to intense suffering, and due to a blow received upon one of the upper dorsal vertebræ: the diseased condition was rapidly growing worse when we began the study of heat and cold over the spine and determined to try cold applications for the trouble. Relief was at once obtained, and after a six weeks' course the seizures had disappeared completely, and only rarely have we been attacked since in the same way, and then after some error in diet.

Cold over the spine will quickly relieve an attack of pyrosis, and in chronic catarrh of the stomach, unless due to drinking, will benefit the patient when internal remedies altogether fail. In this disease it checks the hypersecretion from the mucous glands and increases that of the digestive glands, and by such a result the benefit accruing to the patient can be understood without further explanation. In cancer of the stomach the dorso-lumbar ice bag will often relieve the pain and stop the vomiting, enabling the organ to retain light food, which would be otherwise rejected; it can only be called a palliative remedy, however, in cases of cancer.

In that form of headache due to excesses in eating or drinking, with a foul tongue, sickness at the stomach, great prostration, with hot head and throbbing temporal arteries, a pill of colocynth and mercury, followed in a few hours by a saline draught, with the immediate use of *heat* over the last four cervical and first four dorsal sympathetic ganglia, will often give rest at once to the excited nervous system and brain by contracting the unduly dilated arteries; the heat alone will

give the relief, while the internal medication is attacking the cause of the headache, an overloaded portal system and a sluggish condition of the intestinal tract.

In constipation with a dry condition of the intestinal area, the use of the spinal ice bag over the dorso-lumbar region will in chronic cases gradually make such a good circulation through the mucous membrane as to restore the normal secretions, and, by also stimulating with a normal amount of blood the longitudinal and circular muscular fibers of the intestine, will re-energize them and renew the lost peristaltic action.

We have treated several very bad cases of chronic diarrhea successfully by the use of the dorso-lumbar ice bag, and restored the patients to complete health, the cold over the spine in these cases checking the excess of secretions, as in the chronic catarrh of the stomach.

In "Disorders of Digestion," by T. Lauder Brunton, he says: "Both the cells and the blood-vessels are under the direction of the nervous system," etc., and this is precisely what we find from clinical observation through the use of heat and cold over spinal centers. By cold over the spine the arteries controlled by the centers over which it is placed can always be expanded; and by heat over the sympathetic knots of nerve tissue the arteries can be contracted; the vaso-dilator nerves always terminating, we believe, in tissue cells, and the vaso-constrictors or sympathetics have been invariably traced to the coats of the arteries, and even the arterioles. An American Text-book of Physiology, by Dr. William H. Howell, page 487, declares that "vaso-constrictor and vaso-dilator fibers are often found in one and the same anatomical nerve," illustrating how intimately sympathetic and cerebro-spinal nerve fibrils lace and interlace and are carried equally throughout the system. It is, then, by the contraction and expansion of the capillaries, and by checking or increasing secretion, that we have found the use of heat and cold over the spine so great a power in cases of digestive trouble.

Dr. Dewey's method of doing without breakfast we believe will prove of great service in many cases of dyspepsia by resting the stomach of the sufferer for many hours at a time, thus enabling it to make a more efficient effort when the food is ingested. The regulation of the diet according to the requirements and powers of the patient also aid to hasten recovery in chronic conditions; and the inhalation of oxygen in all forms of chronic digestive trouble will be found of the

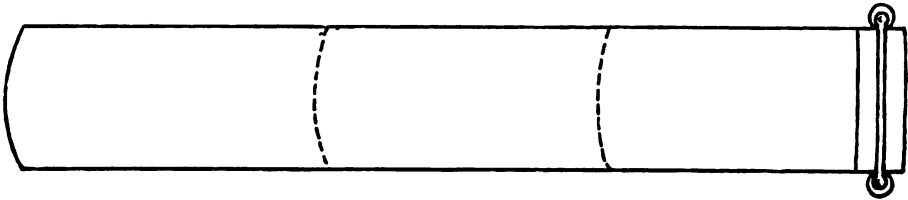
greatest service. In the dyspepsia of anemia the use of oxygen will be found of particular benefit, because it increases the red blood-corpuscles, stimulates the heart, increases the action of the arteries, makes more rapid molecular changes, and betters nutrition. In "A Practical Treatise on Materia Medica and Therapeutics" Dr. John V. Shoemaker says of oxygen: "Oxygen first quickens then slows the pulse, but makes it fuller and rounder. In addition there is evidence in lips and finger nails of increased oxygenation of the blood; digestion and appetite improve, there is increased assimilation and resulting physical strength, the expiration of carbon dioxide largely increases, thus tissue changes are enhanced." The inhalation of oxygen also deepens the respiration, invigorates the muscular system, increases the secretion of the kidneys, and stimulates the bowels to action in cases of constipation, and it has a much wider field of usefulness than is at present realized by the profession. It must be given in a state of dilution; it must be pure oxygen, and wholly free from the deleterious gases found in oxygen prepared by those who manufacture commercial oxygen and advocate its use in medicine.

Pure oxygen alone can not be absorbed by the capillaries, being too dense in its specific gravity, and thus must be combined with a gas of lighter specific gravity to insure its absorption, and it is also irritating when used alone to even slightly inflamed mucous surfaces. The combination which we can most highly commend is that contained in the large blue cylinder, and is the same as that now used by the London Oxygen Hospital and indorsed by all leading authorities. It consists of two parts of pure oxygen, one of nitrous monoxide, and one per cent of ozone to keep it fresh.

To demonstrate the difference between oxygen and nitrous monoxide, we would attract attention to the fact that oxygen liquefies at a pressure of 20,000 pounds to the square inch, and that nitrous monoxide liquefies at a pressure of 700 pounds to the square inch. Oxygen should be administered, when possible, while standing and before meals, to allow of the fullest expansion of the lungs. It is very easily taken from the cylinder, as you simply turn on a stop-cock, place the tube in the mouth after complete expiration, close the nostrils, and inhale the gas, holding the inhalation as long as you comfortably can.

The ice bag for the spine is comparatively easily obtained, but the spinal hot-water bag, is, since the death of Dr. John Chapman, of Paris, France, not so easily come by. We give a rough drawing of the

spinal ice bag, and some essential directions for its ready and facile use, and also place before our readers a drawing of a very good substitute for the spinal hot-water bag.



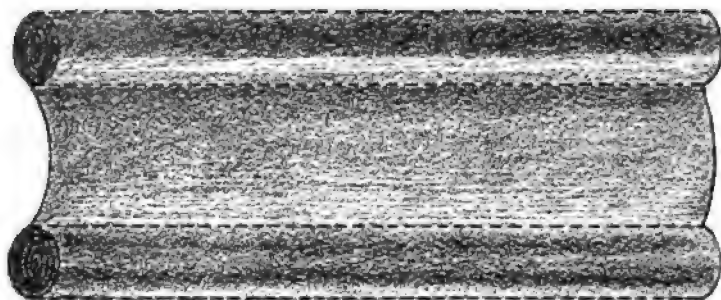
SPINAL ICE BAG.

The bag is divided into three compartments, and for persons of ordinary height and width, 22 inches long and $4\frac{1}{4}$ inches in width. A wider bag would chill the body instead of warming it. The bag is so divided in order to prevent the ice from all rising to the top after filling, thus applying greater cold over one section than another of the spine; also that one, two, or three of the apartments may be filled as is requisite. When one compartment only is used, as over the dorso-lumbar region of the spine, it is best to fill the top one up to the level of the thick piece of rubber across which the clamp is applied; if two, then the upper two, being sure to fill the lower one first up to the bottom of the top one, and then the top one, as before directed.

There is always a large amount of latent air in ice, so we lay the bag down in the warm room after the clamp is securely screwed on, and in a few minutes it will be found to be bulged out with air, which, unless removed, will interfere with the action of the cold upon the centers. Now unscrew the clamp sufficiently to let the air out, and the bag is ready for use, and should always be placed exactly in the center of the back, equally upon each side of the spine. It may be used for one half an hour or forty minutes, twice or three times daily, in cases of digestive trouble if chronic; but if acute, then the application should be continued until the patient is very much relieved, the bag being refilled every hour and a half, or every two hours, according to the season of the year, the ice melting of course much more rapidly in hot weather than in the winter or autumn.

For the hot-water bag may be substituted a piece of thick flannel, one yard long, and eight inches wide; equally rolled from each end toward the center, so that two rolls are formed, leaving one inch of the flannel unrolled in the center. They are then to be stitched, as shown

in the drawing, so that they can not come unrolled. When to be used dip the rolls in water at 120° F., wring out quickly, and apply over the proper section of the spine, and then place a folded dry towel



SUBSTITUTE FOR HOT-WATER BAG.

or piece of oil-silk over the rolls, and let the patient lean against them. They should be re-wet every forty minutes, and reapplied until relief is afforded.

NEW YORK, N. Y.

THE TREATMENT OF ACUTE GONORRHEA.*

BY JOHN L. HOWARD, M. D.

In the following report of gonorrheal cases I can offer nothing new to the Society, but wish to lay stress on a measure of the treatment that is too often overlooked.

CASE I. Mr. J. G., of Cincinnati, aged thirty-four years, married, had contracted gonorrhea for the first time ten days before I saw him. Local treatment had been used during this time by a specialist. The discharge was very abundant, and the merismopedia gonorrhæ were present in considerable numbers. The whole anterior urethra was involved, with considerable irritation at the cut-off muscle, owing to the overzealous use of injections used by the patient himself. All local treatment was stopped for three days, and the patient was directed to drink four glasses of water (about three pints) before breakfast from one of the springs having an aperient as well as a diuretic action. The remainder of the day he drank from a spring having a diuretic action only, six glasses being taken between breakfast and dinner, and five or

* Read before the Louisville Medico-Chirurgical Society, November 5, 1897. For discussion see page 456.

six between dinner and supper, at bedtime two glasses. For a period of two to two and a half hours after each meal no water was taken, to allow for stomach digestion. As to diet: All acids, uncooked vegetables, uncooked fruits, pastries, tea and coffee were prohibited.

At the end of the third day the average specific gravity of the urine was 1004-1006; the quantity passed was not obtainable on account of frequent urinations, which while he was drinking the water would be about every twenty minutes. Reaction of the urine was neutral or slightly alkaline. At this time the discharge had changed from a thick, creamy consistence to that of a thin, watery character, and diminished considerably in amount. He would average three copious stools daily.

Three times daily for five days, beginning on the third day, the anterior urethra was flushed out thoroughly from the meatus with a hot permanganate of potassium solution, and the treatment stopped after two bladder washings by the method instituted by Dr. J. William White, of Philadelphia, Penn., used twenty-four hours apart. At the expiration of six days after the patient had consulted me all discharge had disappeared. He left for home after a two weeks' stay, and has since assured me by letter on two different occasions that he has had no relapse.

CASE 2. Man, aged twenty-seven years, married, sent by Case 1. Had first noticed discharge four days before presenting himself. Had not consulted a physician but had used injection "*brou*" immediately on noticing the discharge. Had gonorrhea previously—three years before. The same course as to water and diet was prescribed, hot permanganate of potassium solution flushing being started immediately. At the end of six days he was called home, and, though no discharge was visible after the fifth day, I prescribed: Bismuth subgallate, 1 dram, zinci sulphatis, 18 grains, aqua calcis, 6 ounces, to be used after urination thrice daily.

He returned to the Springs three or four weeks later, having had no return of the clap.

CASE 3. A drummer, aged thirty years, married, presented a swollen organ, with glands in both groins swollen and tender, lips of meatus congested and almost denuded of epithelium, and having an abundant mucopurulent discharge streaked with blood. Both deep and anterior urethra affected. The prostate gland was congested, and the cord and testicles tender. The discharge had appeared three days before, while he was on the road. He had procured some tablets containing about

two grains of sulphate of zinc and made a solution of six to the ounce, making twelve grains, and had lost no time nor neglected an occasion to inject it deep and strong with a long tipped penis syringe. Knowing it to be useless, no test for the specific germ was made in this case. On account of the acuteness of the case and owing to a slight urethral fever, he was put to bed for forty-eight hours, given a thorough saline catharsis, and allowed as much of the diuretic water as he could take.

On the third day he was able to take slight exercise, the testicles being supported by a suspensory bandage. By the fifth day the discharge had lost most of its purulent character, and no blood was noticed after the second day. He was now given a thorough washing, after the method of White, with permanganate of potassium solution daily for five successive days, and left for home on the twelfth day. I have been able to follow up this case also, and there has been no return of the trouble.

Some two dozen cases were treated in this way, and where I have been able to follow the patients uniformly good results were obtained. The average duration of the disease was under three weeks, and no case was under my care at the Springs over two weeks.

Under the usual circumstances in treating gonorrhea, where the patient is allowed to attend to business and do his own injecting, we know that the duration of the disease is from four to six weeks, and often to our annoyance and the disgust of the patient we have a chronic urethritis with the various complications with which to deal and which may last for months.

The reason that gonorrhea is one of the most unsatisfactory diseases to treat is no fault of the physician. The patients as a rule are drinkers, and in the large cities it is almost impossible to control this. The cares of business and the many exciting diversions of city life are all opposed to regular habits and proper medication. We can not send our patients to some mineral springs, but we can insist upon regular habits, proper diet, etc., and facilitate this by daily visits of the patient to the physician's office.

In the conclusions to be arrived at from the above cases we must take into consideration the fact that the majority of the cases were married men, who were especially desirous of a speedy cure. Their habits and diet were easily regulated, all alcoholic drinks were easily avoided. They were not allowed to do their own injecting. They had access to natural spring waters, which produced the best possible diuretic as well

as cathartic effects, increasing cell metabolism especially of all the glandular organs of the body, and increasing the alkalinity of the blood, thereby putting them in the best possible physical condition.

The local treatment of gonorrhea is only a secondary consideration, but nevertheless it is of the utmost importance. Improper injections used by ignorant hands is the chief cause of a prolonged and complicated clap. Two cases, to my certain knowledge, recovered without any local treatment whatever, at the French Lick Springs, by the patients simply observing rules as to diet, habits, and drinking copiously from the Bowles Spring, a powerful diuretic in its action.

We are liable to be too mechanical with regard to local treatment, and should never, in an acute urethritis, insert an instrument into the canal with a view of giving a so-called retro-injection, or making local applications of any kind. The too early passage of a sound will surely ignite the smouldering spark and renew afresh the trouble which would soon have disappeared without this irritation.

The remedial agents giving the best results are permanganate of potassium and sulphate of zinc. Permanganate of potassium as an antiseptic should be used only in a hot solution, the amount of heat being the highest degree the patient can tolerate. The gonococcus is killed at 120° F., and its spores die at 140° F. A moist temperature of 108° to 110° renders the germ almost inactive, and if exposed repeatedly to this temperature they sicken and die. So, when it is possible to begin hot permanganate flushing early, we will have a fewer number of the spores to deal with in the end, as the sporogenous germs can not thrive if the injections are properly used.

It is seldom necessary to use over fifteen grains of the permanganate of potassium to the pint, and careful observation should guard against ever irritating with a too strong solution.

Sulphate of zinc undoubtedly stands at the head of astringents for urethral injections, and in some cases as much as six or eight grains to the ounce may be used without detriment, though as a rule two or three grains to the ounce are sufficient.

As a final injection when nothing but the slight mucoserous discharge, or "tear" as it is called, is visible, the subgallate of bismuth combined with sulphate of zinc proves very satisfactory according to the formula mentioned above.

The natural spring waters and inorganic salts should stand at the head of diuretics and blood alkalizers in the treatment of gonorrhea.

These waters are easily obtained, and in addition to any special action the patient's general condition is improved by their use.

The use of the different balsams and proprietary vegetable compounds may sterilize the urine for the time being, but they tax the digestive organs to such an extent that all beneficial effects are counterbalanced.

LOUISVILLE.

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, November 5, 1897, the President, Frank C. Wilson, M. D., in the chair.

Epigastric Tumor. Dr. W. O. Roberts: I have not made a careful examination of this patient, as he came in from Indiana to see me just as I was starting here, and thinking the case of sufficient interest to come before the Society, I brought him with me.

He is fifty-two years old; has lived on a farm all his life, and has driven a huckster's wagon for twenty-five years. He comes of a long-lived family, none of the members of which, so far as he knows, having had tumors of any kind. He has been suffering, he tells me, for two years with trouble with his kidneys—frequent and painful micturition. A year ago last spring he noticed some "lumps" in his neck; these, however, were not painful, and he does not think they have increased in size very much for the last few months. Last April he had a great deal of pain in his abdomen attended with much swelling. The physician whom he called in detected an abdominal tumor. Since then he has lost a great deal in flesh, and has suffered more or less from pain in his abdomen all the time. His digestion is bad, appetite poor, and bowels always constipated.

Discussion. Dr. A. M. Vance: From the superficial examination I made of this patient I believe that more than likely the lower segment of the stomach is the seat of malignant disease. This opinion is based upon the hardness of the growth, its location, its nodular condition, history of loss of flesh, gastric disturbance, etc.

*Stenographically reported for this journal by C. C. Mapes, Louisville, Ky.

Dr. A. M. Cartledge: The case presents some peculiarities so far as the greater enlargement is concerned. I think it is a case of universal adenitis (Hodgkin's disease). The gastric disturbance and the dilatation of the stomach are probably due to the lymphatic enlargement about the duodenum and pancreas pressing upon the stomach. I do not believe the disease primarily was connected with the stomach, and the symptoms present in the case at this time are due to pressure. The universal distribution of the enlarged glands, I think, rules out the question of malignancy. I believe the trouble in the epigastric region to be a part and parcel of the general affection.

Dr. L. S. McMurtry: I have nothing to say in regard to the case, except that I believe it is a case of Hodgkin's disease.

Dr. J. A. Ouchterlony: I do not feel so sure about the nature of the case, the history does not point exactly to Hodgkin's disease. The patient has lost flesh more rapidly, has gone down much more quickly than is usual in Hodgkin's disease. The emaciation has been out of proportion to the glandular invasion. Then in Hodgkin's disease there is not usually so much gastric disturbance as this man has had. Some months ago he vomited every thing he took, and it was on that account he sought medical advice. At the present time, while there is some glandular enlargement in both inguinal regions and a great deal of glandular enlargement within the abdominal cavity, the peripheral glands, which are usually most involved in Hodgkin's disease, are but slightly invaded. I only felt in the right axilla, and there was merely one gland that was slightly enlarged. I did not notice any marked enlargement in the neck which usually constitutes the leading feature in Hodgkin's disease—looking like a horse-collar—but I can find a decided, rather circumscribed, hardness in the pyloric end of the stomach, and it seems to me that the stomach must have been primarily the seat of the trouble. Whether this is so or not I think we can find out from Drs. Anderson and Palmer, who saw the patient last June, and their observation at that time ought to throw a great deal of light upon the subject. In addition I find, and I think you will bear me out in the observation, that the man has a well-marked valvular lesion of the heart, a mitral regurgitant murmur, so extensive and so intense that we can hardly ascribe it to a change in the blood.

Dr. T. S. Bullock: I believe the man has malignant disease. There is certainly a tumor at the pyloric orifice of the stomach; the stomach is also markedly dilated. There are also many of the mesenteric glands

enlarged. I was struck in my examination of the case with the point mentioned by Dr. Ouchterlony, that the superficial glands, especially those of the axillæ and neck, are not particularly enlarged. The man states that even now he is unable to take any solid food, and I am of the opinion that the pyloric end of the stomach is the seat of malignant disease.

Dr. Turner Anderson: I saw this patient the latter part of June or the first of July, on one occasion only, and the history obtained at that time was that of vomiting and emaciation. He told me that he had not been a very temperate man in his habits. While he had not been especially intemperate he had not been strictly a temperate person, and his chief trouble at that time was of a digestive character. I made a careful examination of his abdomen, he having been sent to my office by Dr. Palmer, and I detected the enlargement which may now be observed in the region of the pyloric orifice of the stomach. There was none of the general glandular enlargement that we find so decided at the present time. The patient gave a history of great emaciation, pain in the abdomen, and vomiting, and I made at that time a diagnosis of malignant disease of the stomach. I suspected nothing else from my examination of the patient. I believed then, and have not changed my opinion from a subsequent examination of the case, that the primary lesion is in the stomach, and I believe that it is of a malignant character.

Dr. J. M. Williams: Upon rectal examination this case presents a condition which I have never seen before. The sacral lymphatics are very much enlarged and indurated. The entire anterior wall of the rectum and the base of the bladder feel as one solid mass, very much fixed. It may be a very much thickened and indurated bladder wall, or it may be a very large stone. It is impossible to determine just what the condition is by the rectal examination I was able to make, on account of the great pain given the patient, he being so sensitive. My examination was very unsatisfactory on this account. This much is certain, the anterior rectal wall presents as one solid mass, the sacral glands are involved, and conditions point strongly toward malignancy. There is marked dilatation of the stomach, but whether there is a growth in the pyloric orifice, or whether, as Dr. Cartledge has stated, the gastric disturbance is due to pressure of glandular enlargements, I am unable to say.

Dr. E. R. Palmer: I saw this man first a few days before taking him to Dr. Anderson. He complained then of sickness at the stomach,

nausea, vomiting, emaciation, and also of obstinate constipation. I put him upon a placebo for a few days, afterward taking him to Dr. Anderson's office, as he has stated. At my first examination there was no glandular enlargement, except a slight involvement of the post-cervical glands. A tumor in the abdomen was perfectly plain at that time. His particular symptoms, however, were inability to eat solid foods, vomiting, and constipation. I made the diagnosis of malignant disease.

Dr. F. C. Wilson: I have little to say, except to confirm Dr. Ouchterlony's statement that there is a mitral regurgitant murmur. What connection this has with the other troubles from which the patient suffers it is impossible to say. There is a pretty general enlargement of the lymphatic glands, and a mass can be plainly felt at the pyloric end of the stomach. The spleen does not appear to be much enlarged. The history of the case points toward malignancy.

Dr. W. O. Roberts: It strikes me that it is a case of Hodgkin's disease. It is true we usually have great enlargement of the lymphatic glands about the neck before glandular enlargements can be detected in the abdomen or elsewhere, but sometimes the condition is reversed. Sometimes the enlargement of the mesenteric glands is detected before there is any marked enlargement of the glands of the neck. I do not see how malignant disease of the stomach could produce such general lymphatic enlargement of the glands. The man now tells me that he eats bread and some little meat. I believe the stomach trouble is due to pressure from the glandular enlargements.

Bilateral Pyosalpinx. Dr. L. S. McMurtry: This specimen I removed yesterday morning from a woman, forty years of age, who had been suffering with pelvic inflammation for several years, and the operation was urgent on account of obstructive symptoms such as I do not remember ever before to have seen. The uterus was displaced backward and fixed, and she had not been able to have a movement of the bowels for three weeks without the use of from two to three enemata each time, and most of the time she assisted herself by means of the finger introduced so as to excite an irritation of the rectum, and with a great deal of straining only fluid feces could be passed. She could not empty the bladder except in the erect position and with much straining. The fundus of the uterus had crowded the rectum against the sacrum, and the cervix had crowded the neck of the bladder up against the pubes.

On opening the abdomen the omentum was found fastened down, roofing over the pelvis, and every thing was densely adherent. The specimen illustrates an advanced suppurative salpingitis. The tubes have not been opened, but they undoubtedly contain cheesy pus. The adhesions, which were dense and extensive, were stripped loose, and I completed the operation with a thorough curettage of the uterus after removing these masses. Drainage was used. The specimen shows not very extensive pathological change, but the demand was urgent for operation.

Discussion. Dr. A. M. Cartledge: The specimen illustrates a feature in pelvic inflammations, or deposits in the pelvis, which we frequently overlook, or which may cause not erroneous diagnoses, but inferences from diagnoses. That is, that pelvic masses associated with marked retro-displacements of the uterus cause much more functional disturbance than very much larger masses that occupy a higher plane associated with a uterus not out of place. This case illustrates the marked functional disturbance that may be associated with a retro-displaced uterus. It bears out what we know, that many times in retro-displacements of the uterus we have interference with the action of the bowel. We can recall cases of constipation, etc., associated with lacerations of the perineum, for instance, in which the functional disturbance was out of all proportion to the pathological change that could be recognized. The case reported is interesting, bearing upon this point.

The essay was read by John L. Howard, M. D.; subject, "Treatment of Acute Gonorrhea." [See page 448.]

Discussion: Dr. W. O. Roberts: Dr. Howard has certainly given us a most rational treatment for gonorrhea. But I must differ with him as to the strength of the sulphate of zinc as an injection. It seems to me that six or eight grains to the ounce is a little too strong to be used under any condition.

Dr. J. G. Cecil: If there is any thing I do not like to treat, it is gonorrhea. The methods outlined by Dr. Howard appear to me to constitute the most decidedly rational treatment of gonorrhea that has been called to the attention of the profession for a long time. I have had some experience in sending cases of the character mentioned by Dr. Howard to French Lick Springs, that is married men who came to

me with all the symptoms of acute gonorrhea. Two cases I remember to have recently sent there, and both returned with prompt cures, and I am sure they did not have the benefit of such advice and treatment as they would have had if Dr. Howard had been resident physician at the Springs at that time. They simply went there under my direction to get away from home, at the same time I was confident that the use of the water would be beneficial. Both patients reported to me within two weeks after having been sent to the Springs, entirely relieved, with no appearance whatever of a relapse. I would not of course have been ready to draw any conclusions from two cases, but am particularly glad Dr. Howard reported his cases, because I think it is by such treatment as he has outlined that we obtain the best results in gonorrhea.

Dr. A. M. Vance: I agree with every thing Dr. Howard has said, and think he is on the right track. The most important thing in the treatment of gonorrhea is to gain complete control of the patient. If this can not be accomplished it is almost impossible to effect a cure, no matter what means are employed. He is fortunate in his surroundings at French Lick Springs in being able to do this. The action on the part of the patient in his regular daily life, his habits, usual diet, associations, etc., will counteract almost any method of treatment that may be employed by the physician. Ever since I have been in the practice of medicine I have followed out a similar line of treatment to that mentioned by Dr. Howard, particularly the water treatment. I believe that water through the stomach is by all means the best treatment that we can give gonorrheal patients. I remember Dr. Vandell used to direct his gonorrheal patients to never go by a soda fountain without drinking a glass of soda water. If you can not get mineral waters, pure water should be substituted and the patient directed to drink large quantities of it. The main thing, however, is to get control of the patient, and regulate his habits, associations, etc.

Dr. Louis Frank: I commend the paper read by Dr. Howard, and agree in every thing he has said. Like Dr. Vance, I believe much benefit is to be derived in gonorrheal cases from gaining absolute control of the patient so that his habits, etc., may be properly regulated. Many of the protracted and complicated cases of gonorrhea would have recovered much sooner if the patients themselves had observed the proper precautions in the first stages of the disease. Gonorrheal patients should be kept in bed in the acute stage of the disease. There is no question but that the patient up, walking about, following his

usual vocation, and, as Dr. Howard has said, beset with the many temptations which he meets, especially in the city, will not do as well as the patient who is kept in bed and under absolute control of the physician. I further believe that permanganate of potassium is the best agent we have for the local treatment of gonorrhea. I have used it in many of the cases that I have treated, and have obtained excellent results. Perhaps I misunderstood Dr. Howard in saying that this agent should not be used in retro-irrigation. I have used it in this way in all the cases I have treated. Not in the strength, however, that he recommends of fifteen grains to the pint; I have found that from two to five grains to the pint has proved eminently satisfactory. Another point in the treatment of gonorrhea is that injections should be continued for a number of days after the patient has no discharge. We often make a mistake in allowing the patient to discontinue retro-injections or local medication too early. He begins to drink, or perchance visits his "lady love," and his discharge promptly reappears. The action of spring waters, I take it, is largely mechanical; I believe we will derive the same effect from the ingestion of large quantities of almost any water, flushing the urethra mechanically in this way.

Dr. T. H. Baker: I merely rise to express my appreciation of the paper, and also my regrets that Dr. Howard did not cite some cases of chronic gonorrhea instead of all acute cases. I am one of those unfortunate practitioners who have had a great many chronic cases of gonorrhea to treat, where the disease has been persistent, protracted, and complicated. I would also like to have the doctor say whether the beneficial action derived from permanganate of potassium is due to the drug itself or to the heat to which the solution is brought before the injection.

Dr. J. M. Ray: I would like to indorse the use of permanganate of potassium in purulent affections of mucous surfaces. Next to nitrate silver it is the most powerful pus-destroying agent that we have in pus secretion from mucous surfaces. I have recently used it in three cases of purulent ophthalmia, and in every case it had a decided influence in checking the pus flow. I use it in from 1-2,000 to 1-1,000 strength.

Dr. L. S. McMurtry: As to gonorrhea in the female: It is comparatively rare that we see cases of gonorrhea in the female in its early stages. It is only, as a rule, where there is great pain, which sometimes occurs about the urethra, that we see them. I have had no experience with the use of permanganate of potassium under these conditions. I think, though, that it would be an admirable agent.

Dr. A. M. Cartledge : The lesson taught by the paper, it seems to me, is to control our gonorrheal patients, get them to drink an abundance of water, relieve them of their customary work, regulate their diet, and they will get well much quicker than when under their ordinary environments, situated as we usually find them. Permanganate of potassium is probably an excellent remedy in the local treatment of gonorrhea, but I think, like Dr. Baker, there are certain features of the disease, as we meet these cases in practice, in which the most important thing is to determine what agent best controls and influences the disease in the most marked way when applied locally. I want to say that I believe the pendulum has swung too far from nitrate of silver. We know how prone we are to go along in fads or cycles in the practice of medicine. Nitrate of silver has not only been neglected and relegated to a back seat in this connection, but the same thing is true all along the line of surgery. In local infectious troubles of the mucous membranes it is by far the best application we have. In any case of protracted gonorrhea I have never found any thing as good as nitrate of silver. I still use it and expect to continue. I believe the idea that it produces lesions of the urethra resulting in strictures, etc., to be entirely erroneous; such results do not obtain if the agent is properly used. I can see how it might produce an eschar, how it might act as an escharotic, if used too strong, but such strength is entirely unnecessary in the treatment of gonorrhea, and I look upon nitrate of silver as one of the most valuable remedies we have, especially in obstinate cases. I usually employ it in weak solution, rarely over three grains to the ounce. It should not be used in acute cases; I rarely employ it before the tenth day. I direct the patient to drink plenty of mineral waters, open the bowels thoroughly with an alkaline solution, and when the acute symptoms, tenesmus, etc., have subsided, use nitrate of silver. I try sulphate of zinc first, rarely over one or two grains to the ounce, with a little rose-water—an old formula—and then if the discharge shows itself to be rebellious, I substitute nitrate of silver. In many cases of subacute and chronic cases of gonorrhea which have become intractable and rebellious, you will find that relief will follow the use of nitrate of silver when nothing else will cure them. In the last few months I have seen two cases of gonorrhea, that had been treated by a specialist by flushings with permanganate of potassium, which yielded to nitrate of silver injections. I would like Dr. Howard to tell us whether he has seen any tendency of gonorrhea to return after being held in abeyance

by the methods he has employed. I believe it is a fact that if you get gonorrhea in abeyance by means of nitrate of silver it will generally remain so.

Another lesson to be drawn from the paper is that all cases of gonorrhea not properly treated in the beginning are made worse by the treatment. All injections that are improperly made, not attended by a thorough cleansing of the urethra by flushing with water from behind, have a tendency to make gonorrhea worse. If you will give me one hundred cases of gonorrhea in women, and give the average general practitioner an equal number of cases also in women, in which the disease has involved only the superficial parts of the genital tract, my cases to be treated according to my own plan, and those of the general practitioner to be treated as they usually prescribe for such cases, I am convinced that my hundred cases will get well in half the time and with less than half the complications of the higher genital tract. I believe the best treatment for gonorrhea in the female, where the disease has involved only the superficial genital tract, is sitz baths, absolutely nothing else. The old practice of introducing a filthy stem attached to an old fountain syringe which has been used for all kinds of domestic purposes, by which the gonorrheal virus is almost certainly carried higher up in the genital tract, can not be too harshly condemned. The average general practitioner with half a gallon of water and an old, filthy fountain syringe will do more harm in an attempted treatment of gonorrhea, than the disease will do if left to itself absolutely without treatment. By such methods the focus of the disease is carried higher up in the genital tract in nine cases out of ten, the tubes finally becoming infected, making imperative the demand for radical surgical interference, whereas in many of the cases, if let alone, the disease would have subsided after a certain time, perhaps without resulting in any grave complication. Women with gonorrhea of the superficial genital tract should be instructed to bathe themselves frequently, take sitz baths every few hours, drink plenty of water, take alkalines, etc., and instrumentation should be strenuously avoided, especially in the acute stage of the disease.

Dr. F. C. Simpson: I agree with every thing Dr. Howard has said concerning permanganate of potassium in the treatment of gonorrhea. I have found hot permanganate to have better effect than any other agent in certain stages of the disease. In regard to the "tear," as he has stated, when the disease has reached that stage I have found

nothing that will accomplish the desired results in this stage except nitrate of silver solution. My custom has been to take a solution of from two, five, or ten per cent strength, and after locating the tender spots, apply this on a brush through the urethroscope. A few years ago I tried to apply nitrate of silver in the form of a stick, after locating the tender spots in the urethra, a tube having been previously inserted, but after having an accident in this method of treatment its use was abandoned.

Dr. Turner Anderson: I see few cases of gonorrhea nowadays, but I certainly regard Dr. Howard's paper as an exceedingly valuable contribution. Our late friend, Professor Palmer, used to tell us to get our gonorrheal patients to drink plenty of water, and I believe this plan is of much importance. In cases of vesical and urethral irritation I rely largely upon the use of bromide of potassium. I think I can explain the physiological action of this drug and the decided benefit to be derived from it in irritation of any mucous surface. It has a wonderful power over the reflex function as well as an influence over the mucous membranes, and its advantages are such that I employ it in all cases of vesical or urethral irritations; combined with hyoscyamus, or with belladonna, I think we have about as perfect a treatment for vesical or urethral irritation in either the male or female as we can find. I do not know much about the injection of hot permanganate of potassium in gonorrhea, as I have always adhered to the older method of treatment by the use of sulphate of zinc. The annoying symptoms, pain, etc., in the female are best controlled by either bromide of sodium or bromide of potassium combined with hyoscyamus or belladonna. Belladonna in this combination is very beneficial. I give large doses of belladonna in the management of these cases.

Dr. T. L. McDermott: There is a point to be gained in following the suggestion of Dr. Howard, and which might be utilized by physicians generally; it is a feature that gives us more concern and trouble than almost any other in the treatment and cure of gonorrhea in the male, namely, a married man contracts gonorrhea and desires to be cured quickly, privately, and permanently, before his wife has a chance to be suspicious. He might be sent to the Springs on some other pretense, and in this way his gonorrhea cured before he comes home. This is often a serious matter to the physician as well as the patient. I remember an experience had with gonorrhea earlier in my medical career when we did not have as much paraphernalia as at present.

One day two patients, men, having gonorrhea, came to my office for treatment, one who had both arms amputated after a railway accident, the other who had both arms intact. Of course the one without arms could not take an injection himself in the treatment of his gonorrhea, and I would not give it, so he was placed on the internal administration of sandal wood. The other patient with arms was given a prescription for an injection to be used three or four times a day. The one given sandal wood recovered as quickly as the one who took injections. I merely mention this as an experience in the treatment of gonorrhea which may be of some interest. In regard to drinking mineral waters, I believe this has to be done at the Springs. I have tried repeatedly here to get patients to drink large quantities of the mineral waters, and have found it impossible. I know that at the Springs a man can drink great quantities of the water, and away from the Springs he can not do so, and I think it is the volume of water passing through the urethra that does the good. I advise sending patients to French Lick Springs, under certain circumstances, where they may receive the benefit of such treatment as Dr. Howard has outlined.

Dr. E. R. Palmer: I agree fully with what Dr. Howard has said in his paper, and only rise to mention one point: Not only should the doctor have absolute control of his patient, but especially should the doctor do the injecting himself. If the patient is allowed to do his own injecting, his gonorrhea is often aggravated by the treatment; he may use a small syringe holding probably half an ounce, consequently he does not flush the urethra well, and instead of the injection being beneficial it often acts directly to the contrary in forcing the virus into the bladder. One injection a day by the physician will do more good than the customary three or four a day by the patient himself.

Dr. Louis Frank: I would like to ask if Dr. Howard has used formalin in the treatment of gonorrhea? I have tried it in three cases faithfully without beneficial result. I used it in the strength which it has been employed with beneficial results by Dr. Morris in the treatment of salpingitis of gonorrheal origin. Touching the question of gonorrhea in women: In a great many cases we never know that they have gonorrhea, and the women themselves may not be aware of it, as the infection may be in the cervix or the uterus itself. Where the vulvovaginal glands are affected, where the disease can be reached so readily and so easily, these cases certainly get along far better with local treatment by means

of sitz baths than by the use of injections, which in many instances carry the infection higher up in the genital tract, infecting structures which might otherwise have escaped.

Dr. J. L. Howard: There is such a contrast in treating gonorrhea at French Lick Springs and in Louisville, that I could not resist the temptation to bring the subject before the Society. I was almost afraid, however, to make the report, fearing it might be doubted, and at the same time I did not want the Society to think I was "plugging" for French Lick Springs. It is true that a patient must go to the Springs to be able to drink large quantities of the water, only a small amount of the bottled water can be taken. This is probably due to the large amount of carbonic-acid gas and sulphuretted hydrogen held in suspension which the water loses upon being bottled. Probably three quarts would be as much as a patient could consume in the city, whereas at the Springs he could drink three gallons in the twenty-four hours.

As to the strength of sulphate of zinc injections: I have seldom used as much as eight grains to the ounce, and this was in chronic cases of gonorrhea. One, two or three grains to the ounce in acute cases would probably be strong enough. My report was based entirely upon the acute stage of the disease.

As to permanganate of potassium solution being used cold, and whether the good effect is due to the heat, or to the drug, or both: Clinically it has been my experience that it is due to both. In some instances the remedy to be used reminds one of "baby foods." We often have to try several preparations before we find one which will agree with the patient; and in the treatment of gonorrhea we often-times have to try several remedial agents before we find one which will meet the indications. A certain drug will benefit some cases, and will have no appreciable effect upon others. At the present time I believe that sulphate of zinc and permanganate of potassium are the most valuable drugs we have for the local treatment of gonorrhea.

I avoid retro-injections for the reason that they are too mechanical, the instrumentation required to successfully carry out this treatment causes too much irritation. This is the objection Ultzmann, of Vienna, made, when asked his opinion of retro-injections in the treatment of gonorrhea. I believe it to be a fact that so long as you are using retro-injections the discharge will be held in abeyance, but within a few days after these injections are discontinued the discharge returns in a large percentage of cases.

The method of J. William White, of Philadelphia, Penn., is to use a glass reservoir, suspended seven or eight feet above the level of the penis, which holds two or three pints of hot permanganate of potassium solution; a rubber tube leads from this reservoir to a blunt glass nozzle which is pressed against the meatus urinarius; the height of the reservoir will of course depend upon the amount of force desired. I do not use the permanganate of potassium as strong as fifteen grains to the pint at the beginning of the treatment, three to four grains to the pint often being as much as the patient will tolerate. With the blunt glass nozzle against the meatus you force the solution through the urethra and fill the bladder once—the first time you use it there will probably be considerable pain, but after that the patient experiences little discomfort—then allow the solution to pass out; if there is any residual urine in the bladder the solution will come out clear. The bladder is again filled with the solution, and when it returns red it shows that the bladder has been thoroughly cleansed. Dr. White goes on the principle that all cases of gonorrhea become posterior sooner or later. I do not agree with him, if cases are taken in the early stage and flushed thoroughly from the bladder by the water treatment I have outlined. However, I prefer to use the White method rather than to use sounds, although I do not believe stricture is ever produced by the use of drugs or sounds if carefully employed. What causes stricture in the majority of cases is prolonged inflammation.

As to chronic cases of gonorrhea: Those cases I saw at French Lick Springs were acute and not chronic, and as a rule were not such cases as required mechanical treatment. Of course where gonorrhea has existed for a long time, where the disease has become chronic, other methods, sounds, etc., would probably have to be used to effect a cure, but this class of cases was not included in my paper.

Nitrate of silver certainly acts well in many cases, especially the chronic form, but there are objections to its use in the acute stages. The main indication for its use is where there is a little excoriation in the urethra, spots of denudation which persistently refuse to heal; where such exist nitrate of silver will cause them to be covered with an albuminate of silver coating, while it has no deleterious effect upon the surrounding healthy tissues.

The plan pursued by Professor Palmer several years ago was first used by Ultzmann, being a one-per-cent solution of nitrate of silver introduced into the urethra at first, gradually increasing the strength up to five or six per cent.

I have never seen an acute case of gonorrhea (of specific origin) in the female.

I have never used formalin in the treatment of gonorrhea. Argonin acts very much like nitrate of silver, and can be used in a ten-per-cent solution or stronger.

Coma and Impending Death Four Weeks after Injury to Head. Dr. A. M. Vance: At the September 10th meeting of this Society I reported the case of a young man who was injured while playing ball in Jasper, Ind. The pitcher threw the ball, which struck him on the left side of the head just above the ear. He was rendered unconscious by the blow, and remained so for some time. He finally came to himself and was able to get on a train for Louisville, and on arrival here walked unaided from the Fourteenth Street depot to his home at Nineteenth and Bank streets. This injury was received thirteen weeks ago. After regaining consciousness he vomited freely, according to the history that I obtained. He went to bed as soon as he reached home, and gradually sank into a semi-comatose state, from which it was practically impossible to arouse him. Dr. Cecil saw him soon after he arrived here, and I saw him the next day thereafter. We agreed that it was a case of concussion, and thought the man would probably recover. He went along from bad to worse, coma became more marked, with only slight intervals of partial intelligence from that time up to the operation, which I performed about five weeks ago. At the time I first saw him he was able to answer a few questions, but was unable to continue conversation in an intelligent way. A week later his condition was such that we could get nothing out of him; when pinched, for instance, he would show that he noticed it, but seemed unable to say any thing. At that time there was not the slightest paralysis, and no eye symptoms demonstrable by ophthalmoscopic or other examination. He grew progressively worse, being able to take only liquid nourishment. He had no fever at any time, and no evidence of any external injury of the skull could be made out, nor could any thing else be discovered to account for his extremely serious condition. We were in doubt as to the exact nature of the intracranial injury, but the condition was certainly a very serious one.

There having been no improvement, but on the other hand coma had deepened, and death seemed more and more immanent, an operation was decided upon five weeks ago. I took the supposed site of the

injury as a guide, and with mallet and chisel removed a button from the skull the size of a silver dollar. The brain was not pulsating at the point of the operation. On lifting the dura I evacuated quite a quantity of sero-sanguinolent liquid, seemingly a liquefied clot. The brain matter under it was injected with many spots which looked like soot, and the pia had a degenerated appearance.

The wound was closed with drainage. The man recovered from the operation quickly, but for four or five weeks seemed to get no better. At intervals he would take food, but up to two weeks ago we thought he was going to die. About three weeks after the operation he was at his worst; there was considerable nervous excitement; he was practically uncontrollable, and he developed a drop-wrist on the right side.

To-day I saw him and obtained the history for the last ten days; he has been steadily improving; his appetite is now good; he is perfectly intelligent, and the drop-wrist paralysis has disappeared.

One element in the history, perhaps, will merit further mention: He states now that he had for some time prior to the injury a "roaring" in his left ear, and twice within the last four weeks, when I have seen him, the family have told me they had observed on several occasions a blowing sound from the wound in his head; they are certain some noise issues from this source, and that before the injury they state the same blowing sound could be observed coming from the left ear. There is probably an opening in the drum membrane which gives rise to a blowing noise. Of course the idea that a sound issues from the wound in his head is simply absurd.

The man is certainly now on the road to a rapid recovery. He is perfectly intelligent, is gaining in flesh and strength, and tells me that he remembers nothing of what occurred after he left home on his way to the infirmary, that every thing is oblivion until within the last week when he has begun to ask questions about the operation, where he was, etc. He does not remember to have been at the St. Joseph Infirmary, the sisters who attended him, or any thing else that occurred.

Dr. Rodman, who saw the case before he left for Philadelphia, was inclined to think there was an abscess of the brain, as did also Drs. Roberts, Cartledge, Cottell, and others, who discussed the case at our meeting one month ago. The family would not consent to any operative interference for a long time, but finally the condition of the patient became such that they reluctantly consented. I feel quite sure that the trouble was due to a subdural clot which became liquefied, and,

increasing in area in consequence, the pressure effects became greater. Evacuation seems to have relieved him, although improvement is rather slow in its manifestations.

Discussion. Dr. J. G. Cecil: I saw the patient soon after the original injury, and watched him through several weeks of varying stages of mentality. At first my prognosis was very good; a little later, however, I had to agree with others in attendance that the prognosis was exceedingly bad. He grew progressively worse, his mental condition ranging from slightly silly to raving madness.

There is one rather curious feature in the case upon which Dr. Vance did not dwell, that before the operation the man did not exhibit the slightest evidence of paralysis, but after the operation there was, as he has stated, a drop-wrist or paralysis of the right hand and arm.

I had not heard any thing about the case for some time, and am glad Dr. Vance has made the continued report. From what he now tells us, there seems to be little question but the patient will go on and get well, and the doctor and patient alike are to be congratulated.

JOHN MASON WILLIAMS, M. D., *Secretary.*

Reviews and Bibliography.

An Epitome of the History of Medicine. By ROSWELL PARK, A. M., M. D., Professor of Surgery in the University of Buffalo. Illustrated with portraits and other engravings. 348 pp. Philadelphia, New York, and Chicago. 1897.

In offering the profession this epitome of the history of medicine, Dr. Park has conferred a real favor. It is not aimed to be exhaustive, nor is there any claim to originality. The author frankly declares that he has gathered his information wherever he could find it, and has not hesitated to present it in the language in which he found it when that seemed best.

He tells us in his preface that the history of medicine is a history of human error and human discovery, and that during the past two thousand years it is hard to tell which has prevailed. There are those who would be inclined to think it not hard to tell and who would yet be unwilling to say how much there has been of fraud, superstition, and depravity standing in the way of true progress. Among the causes which conspired to prevent the more rapid development of our art, the frowning or forbidding attitude of the church figures most prominently. But little of the true, the beautiful, or the good, says our author, crept into the transactions of the church for many centuries, and we suffer to-day more from its interference in

times past than from all other causes combined; and that the same may be said of theology, which is as separate from religion as darkness from light.

The author might have added that at this day the superstitious features that mar the practice of medicine are upheld more by the clergy than by any other or all other classes. We commend this work as exceedingly readable and as furnishing what every student ought to know of the history of the profession upon which he is entering.

D. T. S.

A System of Medicine. By Many Writers. Edited by THOMAS CLIFFORD ALLBUTT, M. A., M. D., LL. D., F. R. C. P., F. R. S., F. L. S., F. S. A., Regius Professor of Physics in the University of Cambridge, Fellow of Gonville and Caius College. Volume III. 1176 pp. New York and London: The MacMillan Company. 1897.

No other guarantee than that afforded by the names of Dr. Thomas Clifford Allbutt as editor and the MacMillans as publishers would be required as an assurance that this System of Medicine would take its place at once in the very highest class. The high character of the first chapter has been sustained through every page. This volume is devoted to infective diseases and toxicology.

Among the diseases whose consideration carry with them special interest are vaccinia, hydrophobia, and opium poisoning. Vaccinia justifiably receives large attention on account of the reactionary opposition to it that has sprung up in England especially. It seems that the superstition that is trying to drag back into its gloom that part of the religious world that is unwilling to keep pace with the progress of the day is also seeking to cloud medicine as in the days of Paracelsus, or worse, if there be worse, and the reaction against vaccination is one of its forms. This move is well combated with the exhaustive discussion of vaccinia in this volume.

Hydrophobia is discussed with full credit to the Pasteur treatment. The usual tables are given, showing the success of that treatment in a most unsatisfactory way to one who contests the results and demands all the facts. The contentions of Lutaud are still unmet. Taking the figures the author approves as most trustworthy, they put the mortality of untreated cases as sixteen per cent of those bitten; before the introduction of the Pasteur treatment, and taking the number of persons treated, we find that vastly more must have been saved each year than were ever known to have died in any previous year. Thus in 1894 there were 1,392 persons treated. Sixteen per cent of this number is two hundred and twenty-two. There were twelve deaths, however, leaving two hundred and ten saved by the treatment, a greater number than was ever reported in one year in all Europe, and America too for that matter. It can not fail to appear that somebody's vision is biased by kindly disposition in these reports. The treatment of opium poisoning is an especially grateful page to the reviewer, who has fought for years to break down the barbarous and senseless plan of treatment so commonly pursued. An extract is worth giving:

"It is the custom," says the author—a custom in which I have loyally taken my part during many a weary hour—"to 'arouse' the patient by bul-

lying him. He is cuffed, dragged up and down the room by relays of enthusiasts, pinched, singed, flipped with wet towels, bawled at, and racked by electric currents strong enough to drive an omnibus.

"Now, although these measures do no doubt animate a medical student with his first real sense of doing some good in the world, yet, in my opinion, they are as useless as barbarous. I do not call them cruel, but they are to be dismissed with other medieval instruments of torture as curiosities for the Illustrated Short History of Medicine of the twentieth century.

"What possible end can be served by flagellating a senseless corse? So long as the poison oppresses the nervous centers it is useless; when the poison is clearing away it is otiose. Of what possible use are shouts unheard, blows unfelt, salts and feathers unsavored? It were as well to flash a lantern into the eye of a blind man to restore his sight. It is amazing to me to see these violent futilities still gravely prescribed by modern writers."

The reviewer would only add that a man who would strike a patient poisoned with morphine ought to be prosecuted for it in the courts. May Allbutt's System of Medicine reach every doctor's library. D. T. S.

A Practical Treatise on Sexual Disorders of the Male and Female. By ROBERT W. TAYLOR, M. D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. In one handsome octavo volume of 448 pages, with seventy-three illustrations and eight plates in color and monochrome. Cloth, \$3.00 net. New York and Philadelphia: Lea Brothers & Co.

Among the great blessings of the future will be the placing of such a volume as this in the hand of every intelligent young man. And this should be supplemented by laws prohibiting the vile lies that charlatans now deface newspapers with, deceiving, rendering miserable, and defrauding the young.

The author's wide experience has taught him the needs of society, and out of his abundant skill and science he has offered the physician such aid as will prepare him for the too-much-neglected duties in this regard. The work is characterized by practical common sense as well as ripe learning. As the author of "Pathology and Treatment of Venereal Diseases," Dr. Taylor had already placed himself in the very forefront of writers in this department, and this work can not but widen and strengthen his reputation. D. T. S.

The Essentials of Obstetrics. By CHARLES JEWETT, M. D., Professor of Obstetrics in the Long Island College Hospital, Brooklyn, N. Y. In one handsome 12mo volume of 356 pages. Cloth, \$2.25. New York and Philadelphia: Lea Brothers & Co., publishers. 1897.

That "repetition is the mother of memory" every one has learned who has attempted to gather the facts of obstetrics. Over and over the task he must go, from the time he first tackles the intricate structure of the ovule

until he has learned how to watch the child safely past trismus and umbilical hemorrhage and the mother past puerperal infection and mammary abscess.

The student can not, of course, systematize until all the facts are brought in review before him, and it requires a long time for most students to marshal all the facts from cyclopedic works. In this conspectus the discouraging tasks referred to have been performed for him in a most satisfactory way by a capable teacher.

The illustrations are of the most helpful character, and the typographical arrangement must materially assist the student in grasping and assimilating the facts and principles presented.

D. T. S.

Abstracts and Selections.

PRURITUS AS A SYMPTOM OF GENERAL PARALYSIS.—Sarbo (*Pester Med. Chirurg. Presse*) points out that skin symptoms, so well known in tabes and syringomyelia, have not been described in the course of general paralysis, and records two cases of pruritus in that disease. Both belonged to the class of cases in which no other skin change precedes the irritation, which was on each occasion at first local and not general. The nervous system can act in two ways in the causation of pruritus, either, as in the case of pregnancy completing the arc of a reflex action, or producing the irritation as a symptom of its own disease. As an example of the latter he quotes a case of pruritus of the thigh in a neurasthenic male which disappeared entirely with the amelioration of the nervous affection. The first of his general paralytics was a man, aged thirty-five, with a syphilitic history, who had suffered from the disease for a year and a half; from the first he was affected with violent irritation over the whole body, but more particularly the face and head, so that he scratched himself till blood came. There was no other cutaneous affection. Four weeks franklinization relieved both the psychical condition and the pruritus, which subsequently returned together. The pruritus had lasted six months when the author first saw him; it began behind the ears and spread over the whole body. A month's franklinization again benefited both the nervous system and the skin, both of which subsequently relapsed. The reason that cases such as these have not got into the text-books is that the skin symptoms usually appear early and lead the patient to consult a dermatologist while the nervous affection is still in abeyance; later when they came under the care of the neurologist the pruritus has disappeared. The close association of the two is shown by their simultaneous amelioration and relapses. The skin symptoms in general paralysis differ from those in tabes and other affections of peripheral

nerves in three respects: they lead to violent scratching instead of mere rubbing, they are not associated with trophic cutaneous lesions, and they are eventually general and not localized. This general distribution may be due to a toxemia or to the projection of a general disease of the central nervous system. Against the first view is the absence of other affections of the blood and internal organs; in favor of the second are the demonstrable cortical lesions of the disease. In this case the pruritus would resemble the projected sensations in an amputated limb or the projected aura in epilepsy. It is further noteworthy that with the extinction of the functions of the cortex during the progress of the disease the pruritus disappears as well. The author accordingly concludes that pruritus without accompanying skin changes may be a prodromal symptom of general paralysis, and that it diminishes, and eventually disappears, with the progress of mental decay. There is much probability in the view that the pruritus is a projected sensation originating in a cortical lesion.—*British Medical Journal*.

OXYCAMPHOR IN DYSPNEA.—Oxycamphor, which, from physiological and clinical observations that have been already made upon its action, bids fair to be reckoned among the more useful of the ever-increasing number of artificially prepared drugs, is, chemically speaking, camphor in which a molecule of hydrogen is replaced by one of hydroxyl; it is prepared by reducing camphor-orthoquinone by means of powdered zinc and acid. It is a white, crystalline powder with a melting point of about 204° C. It is soluble in cold water to the extent of 2 per cent, but more so in hot water, and readily in all organic menstrua with the exception of ligrosin, the solution in water having a slightly hot and bitter taste. Solutions of albumin are not affected, but myosin is precipitated in flocculi. Oxycamphor is inimical to low forms of organic life, bacterial growth, putrescence and fermentation being markedly retarded by a 0.1 per cent solution and entirely stopped by a 0.5 per cent solution. When added directly to blood oxycamphor causes the hemoglobin to become converted into methemoglobin and otherwise appears to hinder the absorption of oxygen. When injected into the lymph sac of a frog oxycamphor behaves like camphor in paralyzing the muscular coat by acting on the motor nerve endings; the action of the two drugs on the heart, however, is dissimilar, inasmuch as camphor excites the movements when they have been arrested by muscarin, not only when applied by intravenous injection, but also when a dilute solution is sprinkled on the organ, so that it can not cause coagulation of the myosin; oxycamphor, on the other hand, however applied, causes retardation or even actual arrest of the frog's heart. In warm-blooded animals the difference in the action of the two drugs is even more remarkable, camphor producing in large doses mental excitement and rapid respiration from its irritant action on the fourth ventricle; whereas when 0.25 gram is given to a dog subcutaneously or a gram by the mouth the breathing becomes quieter, more regular, shallower, and very much slower. When 0.025

gram is introduced into a vein the slowing of the respiration is very soon followed by its entire cessation, showing that the drug acts upon the respiratory center. The vasomotor center is not affected, except secondarily through the respiration. Numerous experiments have shown that even long-continued and considerable doses do not set up any by-effects in other organs, so that oxycamphor would seem likely to prove a valuable therapeutic agent in dyspnea due to circulatory disturbance. Ewald and Kuttner have made some trials with it and have obtained results which are decidedly encouraging. They consider the dose to be from seven grains to fifteen, and the quantity *per diem* from thirty to forty-five grains.—*Lancet*.

INTRAVENOUS INJECTIONS OF ARSENIC IN THE TREATMENT OF PSORIASIS.—Herxheimer (*Semaine Med.*) has employed these injections in 28 cases, in 25 of which no other treatment was adopted. Of these 25, 10 were completely cured, 6 left the hospital much relieved, and 9 were reported as still under treatment, all greatly improved, and 3 nearly cured. The commencing dose is 1 milligram of arsenious acid, and this is increased daily by 1 milligram up to 15 milligrams, the maximum dose, which is repeated daily till the eruption disappears, generally at the end of six or seven weeks. At the end of the first or beginning of the second week the patches become darker in color, and there is a more abundant production of scales; the eruption then fades and disappears, the pigmentation occasionally persisting. The injections are generally well supported; arsenical zona and diarrhea were met with in a fortnight in 2 cases, and a venous thrombosis, cured in a fortnight by rest of the affected limb, occurred in a third; slight thrombosis also occurred in another case. The following is the method of procedure: After disinfection of the skin by soap, turpentine, ether, and sublimate, and the application of an Esmarch bandage above the elbow to render the veins prominent, the needle of a Pravaz syringe is introduced as nearly parallel to the skin as possible, and its penetration of the vein ascertained by withdrawing the piston. After the injection of 1 c.cm. of a limpid solution of arsenic of the desired strength the wound is closed with oxide of zinc plaster.—*British Medical Journal*.

THE DANGERS OF ARTIFICIAL RESPIRATION.—A. Brosch (*Deut. Arch. f. klin. Med.*) narrates that a man, aged twenty-two, fourteen days after his discharge from the hospital as convalescent from diphtheria, was seen to get up suddenly from the dinner-table, take a few steps toward the door, and fall down. The doctor was called and found the man apparently dead; he nevertheless tried artificial respiration for a long time, but in vain. At the necropsy food was found in the trachea and bronchi, and the uvula and soft palate were edematous. Was the entry of food into the air-passages during life the cause of death, or was death due to syncope? And did artificial respiration after death cause the entry of some of the gastric contents into the air-passages? To throw light on this question Brosch made a number of experiments on dead bodies. He opened the stomach, put fluid into it,

closed up the opening again, and ligatured the pylorus; artificial respiration—Silvester's method—was found to cause the aspiration of some of the gastric contents into the air-passages. In a control experiment he did not open the stomach, but contented himself with trying the effect of artificial respiration on the natural stomach contents; a similar result was quickly obtained, and the fluid contents of the stomach immediately began to fill the pharynx, flow out of the mouth, and enter the air-passages; the fluid food was found in the trachea, main bronchi, and all the branches of the main bronchi. Brosch discusses various methods—preliminary tracheotomy, artificial respiration after the manner of Schuller, Howard, and Marshall Hall—and comes to the conclusion that, when there is reason to fear aspiration of gastric contents, the best way to avoid the possible fatal effects of artificial respiration is, before commencing the movements, to introduce an elastic tube into the esophagus. This he thinks will likewise help to prevent the falling back of the tongue. The tube should, however, be sufficiently stiff to avoid its being quite easily pressed flat, in which case its lumen would be obliterated and it would be rendered useless. It should also reach at least 15 cm. beyond the pharynx into the esophagus and 10 cm. of the tube should project from the mouth, and the outside end should be weighted down, so that, if any fluid comes out, it should not flow back into the pharynx again.—*Ibid.*

CASTRATION FOR MOLLITIES OSSIUM.—Flatau (*Munch. med. Woch.*) describes a successful case where the patient was forty-seven; she married when twenty-six, and had borne six children, the youngest aged eight. Her general health was good, but three years before operation severe pains set in; they were chiefly in the sacrum and thighs. The pelvic deformity became very marked and quite characteristic; even the vaginal inlet was contracted. The uterus was retroverted and held back by adhesions; the appendages could not be satisfactorily explored. The urine was free from sugar or albumin. In August, 1894, the appendages were removed and the uterus fixed by abdominal hysteropexy. Ten days after the operation the pains in the bones had almost disappeared. In February, 1897, the patient was in good health, the pains had never returned, and the deformity of the skeleton had not advanced.—*Ibid.*

THE BECHTEREW TREATMENT IN EPILEPSY.—De Cesare (*Rif. Med.*, August 13, 1897.) records 8 cases of epilepsy treated for a period of six weeks with a mixture of bromide of potassium, codein, and adonis vernalis, given twice a day (Bechterew treatment). In four cases there was complete suspension of the fits, in the three other cases the fits were replaced by infrequent attacks of vertigo, and in the last case there were four attacks of vertigo and two convulsions. In each case the attacks were very much reduced in frequency; no bad results were observed. The digestion was not impaired, the pulse was fuller, the temperature normal, diuresis increased, sleep uninterrupted and calm, and mental condition unchanged. The author believes the results were due to the combination of drugs and not to the bromide alone.—*Ibid.*

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H. A. COTTELL, M. D., Editor.

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OPPROBRIUM MEDICORUM.

In the early spring, this year, we devoted a brief article to a discussion of the pretensions of "The Medical Treatment Company, incorporated under the laws of the State of New York," which, if reports are true, is a live concern, running upon the most approved business principles, and which proposes, in consideration of \$1.00 per month, to furnish any person or family with a competent physician "who will treat [the patient] at office or home, as the severity of the case requires," the doctor's "prescriptions being filled at the druggist's without extra cost." An extra fee of \$5.00 is charged for each case of labor, this sum, however, being sufficient compensation for professional services at the acouchement and during subsequent convalescence.

What measure of success has attended the venture has not been reported; but at all events the profession of New York have survived this barefaced attempt to reduce the doctor to the rank of a common laborer, while the lion's share of his fees are pocketed by a soulless trust. Indeed, the doctors of Gotham have not only survived it, but they seem not to have deemed it of importance sufficient to call forth remonstrance or measures of defense.

Not so, however, is the attitude of the New York general practitioner with regard to the abuse of medical charities in free dispensaries and hospitals and the wholesale, gratuitous, and indiscriminate work of the New York Board of Health. The following, from the New York

correspondent of the Boston Medical and Surgical Journal, shows how matters stand :

THE BOARD OF HEALTH AND THE GENERAL PRACTITIONER.—At the November meeting of the Medical Society of the County of New York, at which the Committee on the Abuses of Medical Charity presented its supplementary report, accompanied with the draft of a proposed new dispensary bill, the President-elect, Dr. Arthur M. Jacobus, delivered his inaugural address. In it he severely criticized some of the methods of the Board of Health, saying, in part : " As the spokesman for 2,500 reputable physicians of this city we condemn the free vaccination and the inspection and examination of school children for contagious diseases or defective vision, etc., regardless of the wealth of their parents or the rights of the family physician or other practitioner ; we protest against the ever-increasing control, segregation, and free treatment in public institutions and elsewhere of patients suffering from even ordinary infectious diseases which any physician of to-day is fully competent to quarantine and treat at home in most instances, and that, too, without the frequent officious visits and criticism of the department inspector or other employe." In the course of the address Dr. Jacobus recommended that the exact legal rights of the Health Board should be ascertained with a view to securing legislative relief of alleged abuses, and urged that the Society, in co-operation with other interested medical bodies, should use all possible influence to induce the legislature to amend the law which excludes the members of the medical profession from the chief executive part of the Health Department. A committee was appointed to take into consideration the subjects referred to. The committee consisted of the following members : Drs. T. E. Satterthwaite, A. M. Hadden, A. Jacobi, H. G. Piffard, and A. A. Smith. The Committee on Legislature was directed to attend the next session of the Board of Estimate to protest against the appropriation of public moneys for private charities.

These attempts to harness Pegasus to the plow are a natural result of the money-making mania and general political corruption of the time. Not only must the profession guard with scrupulous care every portal, avenue, and weak point of the fortress against the never-ceasing siege of quackery, but it must hold the fort in the face of the jugglery of trusts and the trickery of politicians.

In general terms, the doctor who dabbles in politics does it to the prejudice of his professional standing. But, as fire is the proper element wherewith to fight the devil, the doctor may be compelled to enter the political arena that he may be panoplied with such weapons as will enable him to successfully defend himself against the many encroachments upon his hard-earned and well-deserved right to a living in practice of medicine.

Notes and Queries.

THE TRIAL OF A MEDICAL MAN.—Dr. Laporte, of Paris, was called in the middle of the night to a woman in labor. He had to perform craniotomy, and not possessing the proper instruments had to make shift with those at hand, among which was a long needle of the kind used by mattress-makers. The woman died two days later, and the experts who made the *post-mortem* examination gave evidence that they found two perforations in the bladder caused by the needle. The immediate arrest of Dr. Laporte, his imprisonment for three weeks despite all the protests which the medical men of Paris made to the judge, brought about a strong feeling of resentment at the action of the authorities, not only among the medical men of Paris, but also among the general public. The evidence given at the trial was of the most sensational character. That for the prosecution was given by the husband of the victim and two neighbors who were in the room, but whom Dr. Laporte asked to retire at the time of his performing the operation. These, however, said that they left the door ajar, and so could see every thing that went on; they testified that Dr. Laporte used the forceps in an altogether wrong manner, and that, in addition, his instruments were defective! It was shown that the husband had left his wife in labor all day long, that all her previous confinements had been difficult and had necessitated the use of instruments, and that he had only waited until night fell so as to be able to send for a medical man belonging to the *service de nuit* because he could get him for nothing. For the defense sundry expert witnesses said that Dr. Laporte was perfectly justified in performing craniotomy and in using such instruments as were at hand. All the trial turned upon the question whether Dr. Laporte in introducing the needle into the vagina had guided it with his finger so as to avoid wounding the neighboring organs, or whether he had pushed it in haphazard, as the two gossips who were outside the door said he did. In vain did Professor Pinard, the head accoucheur at the Maternity Hospital, give it as his opinion that Dr. Laporte must have guided the needle otherwise he would have perforated the rectum; in vain did he say that the perforations found in the bladder were probably not produced by the needle, but were spontaneous, finally declaring on oath that Dr. Laporte had acted in every way as a thoroughly expert accoucheur, for after having applied the forceps four times the vagina and neighboring organs exhibited no trace of injury. Despite this important declaration, and despite the affirmation of Dr. Laporte that he had guided the needle with his finger, the court adopted exclusively the view of the two witnesses outside the door and sentenced Dr. Laporte to three months' imprisonment. It took into consideration, however, his

former blameless conduct and the humanity he had shown in doing his utmost to save the woman without hesitating on account of the risks he knew he must have been running. The judge gave the accused the benefit of the law of *sursis*, which in France allows sentence to be deferred in the case of a first offender of good antecedents for the space of five years, and at the end of that time the remission of the penalty completely if no new crime has been alleged against the accused during that time. Dr. Laporte has appealed against this judgment, which has aroused a great deal of public feeling. Every medical society of Paris has issued a strongly worded protest, and a subscription has been got up among medical men for the purpose of offering Dr. Laporte such a sum as will enable him to buy any instrument he may lack and to better his circumstances all around. Dr. Laporte, however, has absolutely refused to receive any such thing.—*The Lancet*.

THE DEATH OF HENRY III OF FRANCE.—The French are conspicuous for the zeal with which they search into the sidelights of history, and Regis, Cabanes, and others have done good service in throwing light on historic medical questions. Recently some interesting facts have been made known in regard to the assassination of King Henry of Valois at St. Cloud, August 1, 1589. It would appear that the King was slain by a man who was, like himself, intensely neurotic. Henry III is one of the best-known historical bad characters. His face was small and unsymmetrical; his tastes varied between violent exercise in the worst weather and effeminate coddling of himself in midsummer. Abject superstition made him walk barefoot at the head of a procession, and a few days later he would delight in swearing complicated oaths with intent to insure his final reprobation. He rouged his face, and wore kid gloves in bed to keep his hands white, and was subject to the worst perversions of instinct. But Jacques Clement, his assassin, was also, it would appear, a being who lived on the borderland of crime and insanity. The religious monomania, undeniably the immediate cause of the crime, followed a life of license alternated with extreme mortification of the flesh. It was said at the time that a court ecclesiastic had hounded him to cause him to dream, and to fancy that he heard voices. The truth is that his mind, weakened by vice and bigotry, was thoroughly unhinged by the horrors of the religious wars of his time, and he sincerely believed that Heaven had ordered him to slay a man who, both from a medical and a moral point of view, was his perfect counterpart. Acting on that belief Clement made history by extinguishing the line of the Valois. *British Medical Journal*.

HYPOAZOTURIA.—Reynes (*Sem. Med.*, July 30, 1897,) discusses the question originated in 1880 by Rommelaere as to the true clinical significance of hypoazoturia. Without gainsaying the undoubted frequency of the diminution of urea in cancerous patients affected with cachexia he

insists on the inconstancy of the condition in all cases in which the general condition remains good, the frequency of the condition in non-cancerous patients, and its existence in persons not suffering from degenerate disease, and even in their normal health. The condition is sometimes congenital, and is the outward expression of a physiologically poor constitution, and naturally insufficient metabolic function. Hypoazoturia is neither constant nor specific in cancer, and has no diagnostic value. In 90 non-cancerous cases there were 45 cases of hypoazoturia. The cases observed were nearly all women, and their ages ranged from fifteen to seventy years. The 45 cases included those of non-malignant tumors, surgical tuberculosis, and various inflammatory or traumatic affections. In many of these the hypoazoturia could be ascribed to anemiating and debilitating influences. Appetite was, as a rule, indifferent. The condition may be acquired or congenital; in the latter cases there is a characteristic facies. The appearance is infantile, the limbs small, the flesh soft, the complexion pale, the arteries small and thin. The extremities are cold, the palms perspire, the appetite is poor, the musculo-aponeurotic tissues are weak and given to various forms of ptosis and prolapse. The pelvis is narrow, the uterus small, the menses light-colored and scanty. The subject may be fat, apathetic, or indolent. Without definite complaint there may be inability to bear the slightest physical or mental strain or excess, night-work or traumatism. Such lesions as floating kidney and genital prolapse are common. The English term "renal inadequacy" seems to correspond to hypoazoturia. Treatment should consist in physical and mental rest, moderate exercise, good food, dry friction, hydropathy, but not cold baths. Tepid salt water enemata are invaluable, and materially increase the quantity of urine and the proportion of urea excreted. Opotherapy may do good. Severe operations are badly borne by such patients, and should not be undertaken till the general condition of the subject has been as far as possible improved.—*Ibid.*

A MODERN WEREWOLF.—The authorities in Paris have recently arrested in the provinces a man named Vacher, for whom they had been looking for some time, and who has made a sinister reputation for himself under the name of the "shepherd slaughterer." He is acknowledged to be the author of nineteen murders, accompanied for the most part by violation, and every day new crimes, of which the authors have up to now been unknown, are attributed to him, all of which he acknowledges with a kind of pride, saying that he did them under the impulse of a command from Heaven and while he was in a kind of trance. All his victims were lonely wayfarers, young men, young girls, children, and old women. He often used to open the bellies of his victims in order to glut his lust for blood among the abdominal viscera. Vacher had formerly injured his head in various ways, one of the injuries received being from two revolver bullets, one of which has not yet been extracted. He was for two years in an asylum, but was discharged by the medical superintendent as cured. He

was also for some time under vows in a religious house. At the present moment the question of his responsibility is being hotly debated by lawyers and authorities on forensic medicine. It is, however, obvious that Vacher himself supplies the proofs, for the very exaggeration of his monstrous actions would lead one to suppose that he was of unsound mind, and it may well be asked whether the very complacency with which he takes upon himself every unpunished crime is not simply due to braggadocio and a desire to pose as something more than an ordinary murderer.—*The Lancet*.

THE LATE PROFESSOR HEIDENHAIN.—Dr. Rudolf Heidenhain, Professor of Physiology in Breslau, who died in that city on October 19th, was one of the most eminent physiologists of Germany. He was born in 1834, and after having completed his curriculum he devoted himself very early to physiological study. His first investigations on the physiology of muscles and nerves brought him so much reputation that he became ordinary professor in Breslau as early as 1858, being then only twenty-four years of age, a fact unprecedented in the annals of German universities. During his long occupation of the chair of physiology in Breslau he greatly improved both the study and the teaching of physiology there, and in conjunction with his pupils published a large number of very important memoirs. His principal works related to the secretion of the glands, pancreas, lachrymal glands, gastric and intestinal glands, the secretion of the kidney, the formation of lymph, the mode of intestinal absorption, and many other questions which would take too long to enumerate. Professor Heidenhain was a fervent advocate of vivisection and one of its most energetic defenders. In his pamphlet "Die Vivisection im Dienste der Heilkunde" he demonstrated the necessity of vivisection as a method of scientific research from which practical medicine has derived enormous benefits. This essay undoubtedly had a large share in maintaining the freedom of scientific research in Germany.—*Ibid*.

"NON-COMBATANTS."—The following incident is reported by The Pioneer as having occurred during the fighting at the Ublan Pass, North-West Frontier: "About half-way down Captain Baird Smith and Lieutenant North, both of the R. S. F., were severely wounded. Surgeon-Captains Beyts and Bawfield, A. M. S., rendered prompt and efficient aid to the wounded, the former with the aid of a Sepoy carrying a wounded officer for some distance down the hill under a heavy fire where the ground was too bad for doolies to be used." This is only one of innumerable instances in this and other campaigns of heroism on the part of medical officers; yet "our military advisers," while bestowing definite military titles on pure civilians such as paymasters, who never go under fire, deny military recognition to medical officers who share all their dangers in the field, and on numerous occasions have saved the lives of the very men who do not hesitate to "pill" them when proposed as members of the "Rag" or Naval and Military clubs.—*British Medical Journal*.

Special Notices.

VALUABLE REMEDIES WORTHY OF ATTENTION.—Especially at this season are the tablets of "antikamnia and codeine," each containing $4\frac{1}{2}$ grains antikamnia and $\frac{1}{2}$ grain sulphate codeine, worthy of attention in the treatment of pulmonary disease. This combination is a sedative to the respiratory centers in both acute and chronic disorders of the lungs. Cough, and in fact nearly all neuroses of the larynx are in the vast majority of cases, promptly and lastingly relieved, and often entirely suppressed. In the treatment of la grippe and its sequelæ its value is highly esteemed. In diseases of the respiratory organs pain and cough are the symptoms which especially call for something to relieve; this combination does this, and in addition controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. Exhibited in the grinding pains which precede and follow labor; in the uterine contractions which often lead to abortion; as well as in the nocturnal pains of syphilis, the results obtained are most satisfactory. In the various neuralgias, and in all neuroses due to irregularities of menstruation this combination affords immediate relief, and the relief is not merely temporary and palliative, but in very many cases curative. In these last conditions always instruct that tablets be crushed before taking

FUNCTIONAL INSOMNIA.—There is a class of patients suffering with functional insomnia who experience no difficulty in falling asleep, but after a few hours become wakeful and pass the rest of the night in a more or less restless state. The majority of hypnotics have proved inefficient in these cases because their effort is not sufficiently deep and prolonged to prevent these interruptions of sleep. A writer in the *Kansas Medical Journal*, October 2d, makes the following valuable suggestions as to treatment: "Sulfonal is the best remedy in this class of cases. It is slower in its action, but more prolonged than chloral hydrate, and does not produce anemia. Outdoor exercise or something to increase oxidation is indicated for permanent effect." He believes that in this form of insomnia there is some toxic substance in the blood which acts as an irritant to the delicate structures of the brain and spinal cord, and that these patients are often the subjects of the uric-acid diathesis and of rheumatism.

SANMETTO IN GONORRHEA WITH EPIDIDYMITIS—ALSO IN SPECIFIC VAGINITIS WITH SALPINGITIS, ETC.—I take pleasure in testifying to the admirable therapeutic effects of Sanmetto. I used it in a case of gonorrhea with epididymitis, and the result was, if I may say, astonishing. I also used it in a case of specific vaginitis, followed by the usual sequelæ, salpingitis, etc., and the symptoms were very much ameliorated by its use.

J. W. WORDEN, M. D.

Columbia City, Ind.

AT A MEETING of the faculty of the Chicago Eye, Ear, Nose, and Throat College, held October 1st last, three new professors were added to the faculty, viz: Drs. H. W. Woodruff, William A. Mann, and William H. Weaver. Drs. J. G. Huizinga and Edward M. Webster were elected to full professorships. The faculty deemed this step advisable in order to give the proper care to the increasing clinic and to assure the students the greatest amount of attention.

The preparations of "Pepsin," made by Robinson-Pettet Co., are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house.

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PSEUDOMEMBRANOUS ENTERITIS.*

BY JOHN A. OUCHTERLONY, A. M., M. D., LL. D.

Professor of the Principles and Practice of Medicine and Clinical Medicine in the Medical Department of the University of Louisville.

The disease to which I invite your attention has been described under various names, generally suggesting the writer's view of its nature and chief characteristics, viz., colica mucosa, enteritis or colitis membranacea, pellicularis, tubulosa, fibrinosa, catarrhus desquamativus, tubular diarrhea, mucous diarrhea, croupous or diphtheritic enteritis, mucous disease of the colon, secretory neurosis of colon, pseudomembranous enteritis—the latter being that selected by myself as indicating a clinical fact I have found at some period in the course of this disease.

The nosological existence of this disease dates no further back than 1822, when Mason Good, in his "Study of Medicine," published the first contribution to our knowledge of this disease under the name of tubular diarrhea. On glancing at the literature of this subject one is struck with the fact that nearly all the contributions have appeared since 1890, since which date it has received constant attention.

Referring to ancient writers, we learn that even in remote ages the clinical facts of pseudomembranous enteritis did not pass unobserved. Aretæus, in the second century, mentions them, and Spindler, in 1747, in a work "*De Moles Intestinorum*," describes the material discharged as worked up into a "*materia alba, longa, compacta*."

* Read before the Louisville Medico-Chirurgical Society, November 19, 1897. For discussion see page 495.

The scholarly Mead, in his works published in 1762, writing of the scriptural account of King Jehoram, furnishes the earliest account of a disease that bears a strong resemblance to pseudomembranous enteritis. He says "of King Jehoram it is related that, 'for his wicked life, the Lord smote him in' his bowels with an incurable disease, so that he voided his intestines daily for the space of two years, and then died of the violence of the distemper.' Two impious kings are recorded to have had the same end, Antiochus Epiphanes and Agrippa, of whom it was said, of what avail are bowels to those who have no bowels?"

Etiology. This is but imperfectly known. The disease is extremely rare in children, if it ever occurs among them. It is uncommon even among young adults, although some of my cases were among women between twenty-two and twenty-five. The great majority occurred during the two decades between thirty-five and fifty-five. The female sex is by far more liable to this disease than the male; so much so that among all the cases I have attended I can not recall more than four men, all the others were women. I have never seen a case in a child.

It is generally recognized by all observers that the majority of the female patients were of nervous temperament, had hysteria or hypochondria. Nothnagel says that his male patients were hypochondriacs. Habershon regarded ovarian disease and painful menstruation in the female and prostatic diseases in the male as exciting causes. In my own cases not only had almost all the women some uterine or ovarian disease, but this antedated the development of the enteritis often enough by a very considerable time, and they had almost invariably suffered from constipation. This recalls the fact that Nothnagel found that almost all his patients had suffered from obstipation for several years before the outbreak of the enteritis.

Exposure to wet and cold, coarse, bad food, and fecal impaction, and the abuse of cathartic medicines have all been mentioned as causes, and Grantham asserts that the use of mercury in conjunction with the too frequent use of aperient agents is the cause of this disease in every case. Subnutrition and perverted innervation are probably the primary condition, the peculiar exudative phenomena being determined by different causes, varying according to circumstances in individual cases.

Symptoms. The disease may originate in a subacute attack, but in the cases observed by me it has always been chronic from the first, and

this, I believe, is the general rule. There are first evidences of nervous disturbance, depression of spirits or irritability of temper, nervousness, frequent micturition, the appetite is lost, and the bowels are constipated. With these are associated manifestations of gastric derangements and colic. The pain sometimes comes on suddenly, at other times gradually; it is usually referred to the transverse and descending colon and sigmoid flexure, but may extend over the whole abdomen and radiate into other parts of the body, especially the left lower extremity. Abnormal sensations in the bladder and genitals may also be present. The paroxysms vary considerably in duration as well as in violence, and finally subside when a mass of mucus in varying quantity and appearance is discharged *per rectum*. The patient now feels relieved but exhausted, and digestive and nervous disturbances are allayed for the time being.

The attacks of colic may recur daily for a whole week, or a single attack may be followed by entire freedom for a much longer interval. I have often observed that in women these attacks tend to occur about the menstrual periods. This is what has been designated as colica mucosa or mucous colic. In many cases this feature is less conspicuous, though not entirely wanting, and the disease, while subject to exacerbations and remissions, continues its course for an indefinite length of time. The paroxysms of colic are sometimes attended with a moderate rise of temperature, otherwise it is on the whole afebrile, and the temperature may even be subnormal.

In the fully developed disease there is always impairment of nutrition, the skin becomes dry, the complexion sallow, the extremities cold. The tongue usually moist, pale, and flabby but coated, is in some instances pointed, deep red and glossy from shedding of its coating. The pulse is extremely variable, generally lacking in force and volume but easily excited. The urine often contains oxalate of lime or uric acid, or both. It is high colored and generally throws down a heavy deposit of urates, sometimes phosphates.

The characteristic symptom or rather the pathognomonic sign of the disease is the more or less frequent or regular discharge of masses of mucus, gray or whitish, or sometimes brownish in color, translucent or opaque, varying in form, lumps, flakes, shreds, ribbon-shaped, membraniform, tubular, one or even two or more feet long, undoubtedly originating in the large intestine, to which I have seen it correspond most closely in configuration.

Analysis of these masses shows that they are principally if not exclusively composed of mucin, always containing cylindrical epithelium and occasionally fecal constituents, cholesterin crystals, a few round cells (pus), fragments of undigested food (animal and vegetable) with numerous micro-organisms. The entire absence of fibrin and the exceedingly small number of pus cells are facts which have led a number of observers to deny the catarrhal nature of the disease.

Nothnagel, Leube, Von Penzoldt, and others believe that in most instances there is an abnormal exfoliation of mucus of nervous origin, while the mucous membrane itself is free from lesion. It is true that among the few autopsies recorded some have afforded no evidence of inflammatory change in the bowel, yet in others this undoubtedly was found. But endoscopic investigation of the interior of the bowel during life is a more reliable source of information, and in this way it has been ascertained that the mucous membrane was in a state of intense hyperemia.

The recurrence of fever from time to time would also suggest the temporary if not persistent presence of inflammation. While with these often quite large casts of the bowel are thrown off, there is in many cases constipation, and feces are passed in the form of dry, hard lumps. Even when the mucous discharges are of daily occurrence they are usually preceded by more or less griping and tenesmus.

The study of my own cases has induced me to divide this disease in two groups. In one there was a catarrhal inflammation of the the mucosa of the large intestine, the neurotic element being of variable intensity; in the other a neurosis was the chief element and catarrh, if present at all, seemed insignificant in comparison with the neurotic manifestations.

Prognosis. Essentially a chronic disease, its course is indefinite, and may last for years. I have known cases in which more or less extended periods of improvement and latency would be interrupted by somewhat acute accessions of colic followed by the characteristic discharges.

The progress of pseudomembranous enteritis is usually marked by exacerbations and remissions, the former lasting from twenty-four hours to two weeks, but the disease may pursue a more continuous course. There is hardly an affection which more stubbornly resists all therapeutic efforts. It is discouraging to the physician as well as to the patient to find how refractory to treatment, how persistent the

symptoms, how inveterate the disease often is. Nevertheless I have seen a goodly number recover under my care. Perseverance is the one thing required above all others in the management of this disease. As it not seldom comes on near the menopause, so we may look for a decided amelioration after this period has come to a close.

Although nutrition is likely to be much impaired, especially when the attacks are frequent and severe, yet the danger to life is slight, as shown by the great dearth of *post-mortem* observations and consequent paucity of contribution to our knowledge of the pathological anatomy of this disease. In no instance have I seen a fatal termination of pseudomembranous enteritis, although some of the patients had become extremely emaciated, and the anemia and exhaustion had reached a degree that justified the most grave apprehension.

Therapeutics. In deciding upon the treatment to be adopted in any case the choice of remedies must necessarily be largely influenced by the view taken of the pathology of the disease. If this is regarded as a catarrhal affection, the line of treatment will be different from that one would adopt were the disease regarded as a neurosis. In some cases the neurotic character is strong, in others evidences of a true catarrhal inflammation are present.

Treatment directed to an assumed catarrhal affection was formerly the almost universal practice. More recently, since Nothnagel has denied the presence of an inflammation, and since Leube has insisted that we have to deal with a secretory neurosis, the therapeutic measures have been directed toward overcoming the latter condition. But, whatever theory may be adopted, it will be found necessary in every case to treat leading symptoms, and these present great variations in different cases and at different times in the same case.

The first indication would seem to be to promote the evacuation of the masses of mucus. This is most speedily accomplished by copious irrigation of the bowel with a weak solution, 0.5-0.7 per cent, of chloride of sodium in warm water, or warm olive oil, with or without carbolic acid. A patient now under my care has found marked benefit from irrigation of the bowel with a solution of boric acid.

The selection of a suitable laxative is a matter of importance, the aim being to overcome constipation without causing irritation of the diseased mucous membrane. The milder mineral waters are often very serviceable, Carlsbad and Hathon waters are among the best for this purpose. Henoch says the former should be preferred to all. Noth-

nagel has been obliged to admit that Carlsbad and Kissingen waters, and, still better, a sojourn at these springs, has proven of decided benefit. Sulphur has also been effectual in some instances. Aloes and colocynth and others of the same class, on the contrary, have a deleterious effect.

Counter-irritation, in the form of a succession of cantharides plasters in the course of the colon or the continuous painting of the skin with tincture of iodine, may be of some advantage. Electricity and massage are useful. The intimate relation existing between the intestinal mucous membrane and the external integument reminds us of the importance of maintaining the healthy function of the latter by means of bathing and friction and the use of the flesh-brush. Salt sea bathing has been of great benefit in some cases. The use of flannel underwear and an abdominal bandage of flannel should always be insisted on.

The administration of iron is generally necessary, especially in the later stages of the disease when anemia almost invariably exists. The organic compounds, such as the albuminate, citrate, and lactate, etc., are to be preferred to inorganic preparations. When there is malnutrition, and this is common, cod-liver oil is indicated, and if tolerated usually does good.

Among the remedies which have been suggested I have found arsenic in the form of Fowler's solution to be of great service. Iodide of potassium has been recommended, but has done no good in my hands. The most severe case I ever saw made a good and permanent recovery under the prolonged and steady administration of creasote.

Gentle exercise in the open air, change of climate to a cool and bracing atmosphere is, when attainable, an important factor in achieving recovery. A careful regulation of the patient's diet, avoiding over-fatigue and depressing influences, mental and physical, are indications as positive as difficult of fulfillment, and doubtless many cases are perpetuated by reason thereof. Intestinal antiseptics, such as salol, benzozol, guaiacol, sulphocarbolate of zinc, etc., which are serviceable in relieving unpleasant symptoms, can hardly be regarded as capable of producing any curative impression.

LOUISVILLE.

Translations.

OPIUM AS A CURE FOR ACUTE INSANITY.

[A TRANSLATION FROM THE GERMAN.]

BY P. C. STAHL.

A great deal has been written about the use of opium as a remedy for insanity, but there are vast differences of opinion among specialists as to its final results. Dr. Spitzka, a distinguished neurologist, however, considers opium to be the most useful of all remedies for insanity, asserting that it has a direct influence upon the mind, since it would quiet the nerves and counteract the idea of being hunted down and other delusions.

Very interesting is the experience of Dr. Nuckolls at the principal Insane Asylum in the State of Illinois. He maintains that opium is the remedy "*par excellence*" for the treatment of all cases of insanity wherein great excitement prevails. The best results, he says, have been obtained by the use of deodorized tincture of opium in doses from 15 to 20 drops, gradually increasing to the maximum of 40 to 60 drops, administered three or four times a day. With this treatment suitable food, fresh air, and exercise are indispensable requirements. While opium is liable to interfere with digestion, Dr. Nuckolls has not observed any ill effects on that account. He mentions three cases he successfully treated in the aforesaid way.

A woman, twenty-eight years of age, was brought to the hospital on March 6, 1896, who had had the first attack six months previous to that time. A few days after her arrival she had tried to commit suicide by saturating her dress with ether of petroleum and setting it on fire. The fire was extinguished, and the patient received a few large burns on her breast and neck. When taken to the hospital her condition was most critical. She was constantly laboring under the fixed idea that she had to die in a terrible manner, either by burning, or hanging, or suffocating. Physically she was very low. She would cry, stamp on the floor, and wring her hands, thereby exclaiming that she was unworthy to live, but afraid of dying. She was given doses of tincture of opium, 20 drops, four times a day, and the doses

were gradually increased to 40 drops. This point being reached, the doses were diminished, and on the 27th of June, about three months and a half after her admission, she was discharged as cured, having gained twelve pounds in weight in that time. Beside some anti-spasmodic in the first few days no other medicine but opium had been administered.

Another woman, thirty-three years of age, was brought to the hospital on March 3, 1896, who had been insane for one month. She labored under the idea that her children were going to be killed. She cried, and tried to bite every one coming near her; then again she would weep for hours when being left alone. After putting her under a similar treatment as the first-mentioned patient, she was able to leave the hospital on June 1st, the cure having lasted less than three months.

The third patient was a woman, thirty-eight years of age, who had been insane for nine months. When admitted to the institution she was very weak and thin, weighing only seventy-six pounds. Two days previous to her admission she had tried to drown herself. She fancied that she was without a stomach and without any entrails; she considered herself to be the devil, and thought she would seduce all the people coming in contact with her. Only by means of the stomach-tube nourishment could be given her, since she refused all kinds of food. In spite of this very serious condition she was discharged as cured after a relapse of about five months, having been treated with opium for ten successive weeks. Her weight had been increased by fifty-four pounds in that time.

From his experience Dr. Nuckolls arrives at the conclusion that opium is the best remedy for curing acute insanity, if not in all cases whatever, then in all such cases which manifest themselves by great excitement.

LOUISVILLE.

Reports of Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, November 19, 1897, the President, F. C. Wilson, M. D., in the chair.

Hydatiform Degeneration of the Villi of the Chorion. Dr. Turner Anderson: In presenting this specimen I will make a brief report of the case, which is one of hydatiform degeneration of the villi of the chorion, or dropsy of the chorionic villi.

The patient from whom the specimen was obtained I saw in consultation with Dr. Ouchterlony some months ago. The special features of interest in connection with the case are severe hemorrhage, causing great prostration, and the fact that no vesicles were discharged during any of the hemorrhages, which rendered the case quite misleading. The woman was supposed to be normally pregnant for perhaps three or four months. I do not know the exact history of the case in this particular. She then began having severe hemorrhage, and occasionally feeble uterine contractions. I saw her first at night, in consultation with Dr. Ouchterlony, and found that she had lost a great amount of blood. She was exsanguinated and a tampon had been used to control the hemorrhage, supposing that it was a case of placenta previa. After we had adopted all the ordinary means for protection of the patient, the tampon was removed and I made a careful examination. At that time I was constrained to believe it was a case of previa. Hemorrhage had ceased, but the patient had been so much reduced by previous bleedings that I did not deem it advisable, in the absence of pain, to do more than to make the examination and remain with the patient.

After waiting for a number of hours and observing the quite feeble uterine contractions, I found that the os was partly dilated, and I then deemed it advisable to make an effort to rupture the membranes. The examination made at first had misled me as to the condition present. When I made a more careful examination, and in my effort to rupture the membranes, the case became very much plainer; I found that the uterus was filled with a mass of organized or semi-organized material,

* Stenographically reported for this journal by C. C. Mapes, Louisville, Ky.

and that there was no fetus. I carried my fingers well up into the uterus and scooped out the mass, entirely emptying the uterine cavity, pressing it down firmly and turning out the material, some of which you see here. The abdominal distension in this case was as usual in this disease. The woman had developed at a rate that was greater than we could find in normal gestation.

The special feature of interest, and I have encountered several cases of chorionic degeneration, was that this woman had recurring attacks of hemorrhage without the discharge of any of the vesicles. If we had found any of the little masses such as you see here, if any of these vesicles had been dislodged and driven out by the bleeding, we would then have been able to make a prompt and accurate diagnosis, but none of the masses were discharged during any of the attacks of hemorrhage from which the patient suffered.

I believe it was Velpeau who first called attention to the fact that this condition was the result of dropsy of the chorionic villi, and not the formation of true hydatids. It is now pretty well recognized that these cases are nothing more nor less than degenerative processes taking place in the villi of the chorion. Microscopical examination settles that question and shows that these masses are not true hydatids.

Gooch, one of the older obstetricians, said these things looked very much like white currants floating in red currant jelly, or white gooseberries floating in currant jelly. I assume you are all familiar with his description of the condition illustrated by the specimen before us.

I have never seen a case that was more misleading than the one covered by this report. When the os was partly dilated in making an examination we had every reason to believe that the case was one of placenta previa; as hemorrhage had discontinued, we decided to remove the tampon, and in the absence of pain we thought it better to simply watch the patient for a while; after waiting several hours and stimulating slight contractions of the uterus, I determined the better plan would be to rupture the membranes and relieve the uterus of its contents; when the membranes were ruptured I found that the features of the case became clear, and I had no difficulty in emptying the uterus of this mass.

The woman was the mother of several children. She made a tedious but satisfactory recovery.

Discussion. Dr. J. A. Ouchterlony: I was associated with Dr. Anderson in this case, as he has stated. The woman was the mother

of a large family of children, and six months had elapsed since her last menstruation. Shortly after four months she felt sure that she had had quickening. Between the fourth and fifth months she began to have occasional and small hemorrhages. At first I paid little attention to this, but very soon the hemorrhages recurred with sufficient frequency and in sufficient profusion to make me feel that in all likelihood it was a case of placenta previa, so I put her to bed and used a tampon. On the evening when this Society last met with Dr. Anderson, I was telephoned for in great haste. I ordered a carriage, went home for my instruments, then drove to the home of the patient, and upon reaching there found that she had flooded profusely. I felt convinced that something ought to be done, and immediately called Dr. Anderson, who arrived shortly. The rest of the history you have heard, except this, Dr. Anderson found the uterine wall so much attenuated that it required careful manipulation in emptying the uterus of its contents.

She has never menstruated since then; but about three months ago I was called in again. She had great difficulty then in making water. Dr. Anderson again saw the case with me, and found an enlarged retroverted uterus, the neck of the uterus pressing up against the urethra so as to interfere with emptying the bladder. The uterus was restored to its proper position, and now the patient is in very much the same condition that she was in prior to the severe hemorrhage, with this exception, that she has not as yet begun to lose blood. She thinks she has felt quickening, but is somewhat doubtful about it, and the question is whether she is really pregnant or whether it is a recurrence of the same state of affairs as has been reported to-night. The case is certainly interesting and promises to be so for some time to come.

Dr. Wm. Bailey: I would like to inquire if upon the first increase in size of the uterus, or in her present condition, any of the ordinary circumstances or experiences going along with pregnancy were observed, viz., nausea, vomiting, change in color of the areola around the nipple, etc. It would be interesting to know if, when the uterus enlarges from a condition of this kind, the same symptoms occur as ordinarily take place in a normal pregnancy.

The case is remarkable in that hemorrhage took place so protusely without detaching some of these little masses. This is a feature by which we might easily be misled; ordinarily I presume there would exist such conditions as would make the diagnosis easy. I can see

how it would be very easy to have been misled under the circumstances, as the true condition of affairs could not be determined until an exploration was made.

It is possible that the same condition is present now, and it may be the same process will have to be gone through with again, in which event I suppose some more radical measure of getting away every thing from the uterus ought to be undertaken.

Dr. T. S. Bullock: The distension of the abdomen in these cases, or the size of the mass, depends upon the time cystic degeneration of the chorionic villi takes place, and whether the chorion is shaggy or whether it has undergone atrophic changes such as occur at the time of formation of the placenta, etc.

I believe it has been determined that pregnancy may go on even when cystic degeneration of the chorionic villi is present.

The case is extremely interesting, in that none of the little cysts were discharged, and I am inclined to think, as the report shows pain was present, if there was any contraction of the uterus extrusion of some of these little bodies must have occurred. Possibly, if a closer examination had been made, some of the masses would have been discovered during the hemorrhage, but the condition not being expected such an examination was not made. Of course it is impossible to state just how long pregnancy had existed; and, if the woman is again pregnant, I would like to ask whether there is great distension of the abdomen. One of the most important evidences of cystic degeneration of the chorionic villi is undue distension of the abdomen in comparison with the duration of pregnancy.

Dr. W. O. Roberts: I happen to have had but two cases of this kind, and in both of them the vomiting was excessive. In one it was so great that the woman became almost exhausted, and Barnes' dilators were used to induce miscarriage. Nothing was evacuated from the uterus except a mole. I was struck with the fact that in both cases the nausea and vomiting were so constant.

Dr. Turner Anderson: Dr. Ouchterlony in his supplemental report has covered the ground fully in regard to the present condition of the woman. My judgment is that she now has a normal pregnancy. When I saw her the uterus was retroverted and we had some difficulty in repositing it. I replaced it by the usual method, getting the cervix in the hollow of the sacrum. There are all the symptoms at the present time of a normal pregnancy. Hagar's sign, a softening of the

lower segment of the uterus, is well marked, there is morning sickness, etc. The uterus is not unduly enlarged, and the abdomen presents about the size we would suspect in a gestation at four or five months.

There is no reason to suspect that hydatiform degeneration of the chorional villi should take place a second time, and I believe the gestation which is now in progress is a normal one.

Dr. J. A. Ouchterlony: I would like to state, in replying to Drs. Bailey and Bullock, that in the first place in this case there was morning sickness which lasted for several weeks. I asked her about the change in the mammæ, and she told me that in several of her pregnancies she had not experienced any marked increase in the size of the mammary glands. She is an intelligent woman, and as she has a large family of children has had considerable experience.

As to the examination and possible failure to find any of the hydatiform masses: Examination was made carefully and repeatedly, the woman watched with a great deal of anxiety every thing that passed from herself, and I did the same. If any such thing had ever come away, save when she was in the water-closet, it would undoubtedly have been noticed. Even when she had a severe hemorrhage there was no pain. I remember distinctly that Dr. Anderson waited for pain, hoping that it would come on.

Enucleation of the Eye for Glaucoma. Dr. J. M. Ray: I present for your inspection an eye, which has been mounted according to the improved method of Priestley Smith. This eye Dr. Fox, of Philadelphia, was kind enough to enucleate at my Clinic in the University of Louisville last Saturday morning. The only feature of especial interest about the specimen is the great distension of the eyeball, cupping of the optic disc and the complete pushing forward of the iris in contact with the cornea.

The patient was a colored boy, aged fourteen years, who had been under my observation for six or eight months. When he first presented for treatment he was suffering with an active interstitial keratitis in both eyes. One eye went on to recovery; in the other the iris and ciliary body became involved, a secondary glaucoma became established, and the eye was enucleated to relieve pain.

By examining the specimen you will see there is well-marked cupping of the optic nerve; there is enormous pushing forward of the iris, with complete obliteration of the interior chamber.

Discussion. Dr. S. G. Dabney: Outside of the interest of the specimen itself, it is unusual to find a secondary glaucoma following interstitial keratitis.

I was in hopes Dr. Fox would perform the operation about which I have often read in his papers on the subject, known as Mules' operation, leaving a stump on which a glass eye may be advantageously placed. I saw Dr. Fox perform that operation in Philadelphia recently, and followed the operative steps with a great deal of pleasure. By this method an ideal stump is made for the application of a false eye. The operation was very skillfully done, and I was in hopes the doctor would perform the same operation here.

Dr. L. Webster Fox, of Philadelphia (by invitation): We have two methods of procedure which we have been following for some time in these chronic cases of glaucoma. It is objectionable in most of such cases to remove the eyeball, but we have to consider the condition of the patient, and particularly where his surroundings are such that the purchase of an artificial eye would mean a great deal. In this case the probabilities were that an artificial eye would not be worn, therefore it seemed best to perform a complete enucleation. Under other circumstances I would probably have performed in this case a resection of the optic nerve, taking up the external rectus muscle, removing a portion of the optic nerve and turning the eyeball back in place. In many cases this operation answers well, and leaves the eyeball perfect in its contour, exactly the same size as its fellow, there being no shrinking of the eyeball at all. Again, we perform what is known as Mules' operation in many cases—the conjunctiva is dissected from its corneo-scleral attachment back to about the equator of the eyeball, the muscles not being interfered with, then the cornea is excised. This is best done with a large Beer's knife, as in performing a flap operation for cataract; the lower half of the cornea is removed with curved scissors and the contents of the globe are taken out with a small scoop devised for the purpose. Great care is necessary to remove the ciliary bodies and choroid and the head of the optic nerve, leaving the clean, white sclera.

A sterilized glass ball, which is best suited to the case, is then inserted with a specially devised instrument, the sclera is slit vertically so that the edges may be drawn together and held by stitches of fine silk or catgut, completely hiding the glass ball. The orbit is again thoroughly irrigated with the hot solution and the socket packed with sterilized cotton, over which is bound a sterilized bandage, and the

patient is put to bed. I have performed nearly one hundred of these operations so far, and have had little or no bad results. The glass ball has come out on several occasions, which was evidently due to some fault in my minor technique. This has happened I believe in four cases where the operation was done following injuries to the eye, and there was no reason why the glass balls should have been extruded, but the stitches gave way and the glass balls came out. Where the stitches give way it is only a question of time when the glass ball comes out. In such cases we allow the hole to close, and do a subsequent operation, taking out the little stump that remains behind for the employment of the glass ball. We try to do every thing that we possibly can toward pushing out the artificial eye so as to fill up the cul-de-sac. In ordinary cases, where you remove the eyeball, the cul-de-sac is deep, secretions are retained behind, or pass out around the artificial eye and become dry, hard, and exceedingly irritating to the eyelid, constituting a very painful and annoying condition. I have found in these cases that it is better to make a small horizontal opening in the conjunctiva, and with curved scissors making a sac and forcing into it a glass ball, then bringing the parts together, and in a week or ten days when healing is complete we have a good artificial support. This is a plan which was originally devised by Frost, of London, later modified and carried out by myself. Frost advised that the conjunctival incision be made immediately after the original operation; but I can follow the primary operation a long time afterward, say four or five years, and still obtain a good support by means of the glass ball.

Practically we are as much in the dark concerning the theory of glaucoma as ever, but in all painful cases there is one thing which must be done, and that is to relieve the pain. Iridectomy in these cases would be useless. Sometimes sclerotomy is performed, but it has not been a particularly satisfactory operation. In view of these facts I have, in most cases resorted to resection of the optic nerve.

The essay of the evening was read by J. A. Ouchterlony, M. D.; subject, "Pseudomembranous Enteritis." [See page 481.]

Discussion. Dr. J. B. Marvin: The only criticism I can make on the essay is that the author has covered the subject so thoroughly that he has left little or nothing to be said.

I have seen a few such cases as he has described, and have had many specimens of the ejecta sent me for examination. A great many

such specimens have come to me from various portions of the country, some thinking they were worms, others that a segment of the bowel had been evacuated, etc. Outside of this my experience has not been great.

All the cases that I have seen have been chronic in character. I have seen one case in a child, one or two only in men, the majority have been in women. I have never seen a case that did not have more or less of the neurotic element in it.

I have been very much persuaded that all of these cases, if we limit the term strictly and properly, can be classed under the heading of secretory neuroses, and I have in mind now the excellent resume of the other conditions which may act as causative factors, viz., catarrhal and inflammatory conditions, as mentioned by the essayist. I may have been too zealous in attributing all such cases to neurotic conditions, but it seems to me the nervous element is the most important. I have never seen a fatal result. I have watched one case, a lady, over a series of years, and she is still living. It is a very distressing trouble, not because of the immediate danger to life, but because of the mental condition present. I have never seen a case where the patient was not aware sooner or later of the passage of this material, and watched for it carefully, and dwelt upon it so much that it produced a very distressing mental condition.

In regard to the diagnosis: It is easily enough made, the location of the pain, the general appearance of the patient, history of the case, and a microscopical examination of the contents of the bowel when evacuated. I had an experience once or twice where I found the material passed in the stools was composed of asparagus, as it had this appearance—in another case, in a person who was very fond of bananas and had eaten a lot, of the inner skin that had passed intact. Microscopical examination revealed the true nature of the condition. I have occasionally found a small number of irregularly shaped pus corpuscles, red and white blood cells, or other evidence of a catarrhal or inflammatory condition.

In regard to the management of these cases, it has always seemed to me that careful and strict dietetic and hygienic methods were of first and greatest importance. I have used, in addition to the agents mentioned by Dr. Ouchterlony, douches, tepid baths, and the wearing of an abdominal bandage, and have thought if I got more benefit from any one single agent than another, it was from a properly fitting flannel bandage worn over the entire abdomen. Arsenic and bromide of

strontium have seemed to me to be the best medicinal agents. The bromides, especially the bromide of strontium, acts especially well in those cases where there is a great deal of nervous disturbance.

For getting rid of the material I have used castor oil; or, if the patient objects to castor oil, phosphate of sodium is more palatable and I believe is preferable to any of the other salines. I have been afraid of the ordinary salines; it seems to me the trouble would be increased by their administration if not very carefully watched.

As to the flushings with simple saline solutions, as mentioned by Dr. Ouchterlony, I have used them, but believe more benefit can be obtained from the addition of fluid hydrastis, using a long rectal tube and flushing out the colon. It may be a fad on my part, but I give hydrastis in all these cases, and think I have seen decided benefit from its use. I give the patients a little bottle of tincture of hydrastis canadensis and instruct them to take a few drops of it frequently during the day, and believe it has an excellent tonic effect.

Dr. Thomas Hunt Stucky: I have seen a few of these cases, and want to confirm the statement made by Dr. Marvin as to the beneficial effect of bromide of strontium. I have also given the paraf javal preparation with benefit. I believe I have gotten some good results from benzosol in five-grain doses, giving plenty of water afterward. I have also used the alkaloid hydrastine, although good effects have been produced by the administration of the fluid extract hydrastis (Lloyd). As a laxative, phosphate of sodium has been my favorite. I have given castor oil when I could get the patient to take it. I am a firm believer in the colonic douche, and have modified the line followed by Dr. Ouchterlony by the addition of olive oil, believing thereby that if there be any fecal matter remaining in the bowel it is softened, and it naturally lessens the tenesmus. There is more or less of the oil remaining, which has a certain laxative influence and lessens the amount of laxative medicine to be taken by the mouth. I am of the belief that there is a neurotic element in these cases, and have used the arseniate of strychnia alternating with hot and cold douches to the spine, massage, and the application of electricity.

Dr. L. S. McMurtry: So far as I can remember I have seen four cases of this disease; they were all in women, and two of them were in women who were suffering with marked reflex disturbances from old lacerated and ulcerated cervix uteri. The disease was not materially influenced by operative treatment, and I have been very much

impressed in my observation of the disease, as stated by Dr. Ouchterlony, that it is a form of secretory neurosis.

In regard to treatment I quite agree with the last speaker (Stucky) that a great deal is to be accomplished by colonic douching. I use entirely a saline solution, flushing the colon with it, and try to improve the patient's general health in every way possible. One of my cases was in a very marked hysteric, and I can only confirm the suggestion made by Dr. Marvin, that it is very important to get the patient's attention off from the discharges of the bowels; they watch them and report on them constantly, and when that habit is once established it is one of the most difficult to get rid of. It adds a great deal to keeping up the trouble I am confident. They constantly watch the discharges, and even after the disease improves very much they imagine that it still persists, and it has a distressing effect.

Dr. Wm. Bailey: In regard to the disease under consideration being regarded as a neurotic trouble, I would ask attention to this fact, that most people are in such a state of health as a result of this condition as to make neurotic symptoms probable from the source of malnutrition, etc., and I do not think because of this neurotic manifestation we should necessarily conclude that the disease is a neurosis. I have been inclined to think of many of them as a subacute inflammation of the mucous lining of the intestine.

As to the management of such cases, I believe that we will do better in the line of treatment hereafter, since we have been able recently, I think, to disinfect the alimentary canal, since we are furnished with many remedies that will pass through the stomach unabsorbed, that do not expend their force until they reach the intestinal canal which we desire to disinfect, so that we are in better position to treat the disease being considered than we have ever been before. I was not surprised, then, to hear Dr. Ouchterlony say he had derived great benefit from creosote. We have guaiacol, salol, and other preparations which are not dissolved in the acid secretions of the stomach, but expend their force after they reach the alkaline juices of the intestine, and we have reason to believe that by the administration of these remedies improvement will follow. It is essential that local treatment, if possible by the colonic douche, should be practiced; by this means we can make an effort to cleanse the diseased mucous membrane, even removing the foreign material, and putting the mucous membrane in better condition to receive afterward the local medication. I was glad to hear

hydrastis recommended in the treatment of this condition, because I do not believe we have a better remedy as a mucous membrane tonic, if you please, than hydrastis canadensis. I believe it exercises an influence over diseased mucous membranes as perhaps no other remedy does; both given by the mouth and in connection with the douche I would advise the use of hydrastis canadensis. As a laxative I use an old-fashioned preparation, sulphur with cream of tartar, which acts very satisfactorily, with little irritation, and is a valuable addition to local treatment by flushing with water as a cleansing agent. Local treatment to the diseased mucous membrane by means of the colonic douche, using hydrastis canadensis both in the injection and by administration through the mouth, with a laxative if necessary, improving the nutrition of the patient with such remedies as seem indicated, I believe constitutes the most rational management of the disease under consideration. Such diet should be enjoined as will best support the patient without demanding absorption from the affected part of the alimentary tract, in other words we should allow such foodstuffs as will be appropriated as high up in the alimentary canal as is possible.

Dr. J. G. Cecil: I wish to speak particularly of the treatment. Like most of those who have preceded me, I have had a very limited experience with this class of diseases. I have been disposed to favor the use of mercurial purgatives in the treatment of the constipation associated with this disease. We have in the old-fashioned gray powder a very excellent and safe purgative; calomel may be used also with perfect safety. Of course they can not be continued indefinitely, and they should not be used too often, but for a thorough cleansing, a dose of calomel or a few doses of gray powder followed by castor oil I have found to be thoroughly reliable and efficient. It has been my practice in the few cases I have seen to use a remedy which I do not believe has been mentioned in the discussion thus far, but which I find in most of the authorities consulted, that is a weak solution of nitrate of silver after a cleansing douche of warm water, or simply after a free purgation, with watery discharges, to be followed by a douche of a quart or two of warm water with a small proportion of nitrate of silver. I believe we have in this agent one of the very best that can be applied to any mucous membrane in such a condition as we believe it to be in this membranous or pseudomembranous enteritis.

As far as I can remember I have always associated this disease with the nervous affections of women, and am consequently disposed to

believe that there is certainly a very strong neurotic element in all such cases.

Dr. F. C. Wilson: Most of the cases of this disease I have seen have been among women. I have always been in the habit of using the ordinary sublimed iodine as an alterative and astringent combined with hydrastis. This is a combination that has struck me as giving better results as far as internal medication is concerned than any thing I have used. The local treatment of course is that of cleansing, and every one has his own notions as to the best way in which that can be accomplished. Large enemata of simple water may be effectual, and if this is followed by some astringent and disinfectant much good may be accomplished. I have used in some instances peroxide of hydrogen for this purpose in quite a dilute form, and it has given me good results. I have seen several instances where I was satisfied there was an ulcerated condition of the mucous membrane which healed under the simple injections of peroxide of hydrogen. I have also used nitrate of silver sometimes combined with chloral hydrate with good results. Hydrastis may be used in the same way. The newer preparations of silver I have not had an opportunity to use. Argonin and tannigen have been employed in some instances with benefit, but with these preparations I have had no experience.

Dr. J. A. Ouchterlony: I have been very much interested and instructed by an account of the experiences of the different members of the Society, all the more so because in some instances their experiences differ from my own. Of course pseudomembranous enteritis presents itself in a variety of forms so far as its severity is concerned. As Dr. Bailey says, in some instances the neurotic condition is the primary one, in others it seems to be a secondary manifestation. In those cases where the neurotic condition long antedates the development of the pseudomembranous enteritis, we naturally consider that the neurotic condition, if it has any thing to do with the subsequent trouble, stands in a causative relation. In many of the cases I have seen, the masses of mucous discharged were so enormous in quantity that it was really marvelous, and the rapidity with which they were re-formed was very remarkable. I have seen cases where it seemed as if the whole colon had come away. Dr. Marvin has witnessed such cases I am sure, a cast of the whole large intestine, the sacculi of the colon being most beautifully reproduced, you could pick it up on a stick and it looked exactly as if the entire colon had come away.

I do not believe that astringents do much good in such cases. I believe we have to rely upon alteratives; intestinal disinfection is beneficial I am very sure, but I can not believe that the injection of a very weak solution of nitrate of silver can do very much good. I have never tried nitrate of silver, so I have no right to speak of what good it might do, but it seems to me not likely to answer the purpose in such cases. The consensus of opinion among Continental writers seems to be that astringents do not do much good, and I believe the good we shall be able to accomplish will have to be done in the direction of building up of the nervous strength of the patients.

Of course I have tried strychnia, and have tried it faithfully for weeks and months, as I have most of the other tonics, but in spite of all we can do we have to realize that we stand face to face with a most rebellious disease. Exactly how it originates, the mechanism of it, I do not understand, and do not believe anybody else does, but I am sure there are at all events two classes of cases, one class where we have to deal with probably a pure neurosis giving rise to secretory disturbances, and another class where there is a catarrhal inflammation plus this peculiar tendency to pseudomembranous formation, and I believe in the treatment we have to differentiate between them.

I would like to hear from Dr. Marvin as to his experience with regard to the composition of these masses of mucus. I have not done any microscopical work in connection with these cases, and would like very much to hear from Dr. Marvin as to what his experiences and observations have been so far as the micro-organisms in these masses of mucus are concerned. Some one has advanced the theory that the more severe and more morbid processes are due to the presence of particular organisms.

Dr. J. B. Marvin: To determine the presence of mucin in these masses is a very easy matter by testing with acetic acid; under the microscope it reveals a mass with little striated structure; with epithelial cells nearly always undergoing some degeneration; a great deal of granular matter; occasionally I have seen blood cells; triple phosphates and a great many of bacteria of various kinds. I have made no special cultures to establish the different kinds of micro-organisms found in these cases.

I have noticed one other condition in only two cases, one case happened to be in a man that I saw with Dr. Brandeis many years ago, where the material passed was studded with little grains, gritty looking,

like phosphatic calculi, and in looking up the subject some time ago I found that authors have referred to the same condition. In this case the little gritty masses looked some like sand sprinkled over the mucus. The masses passed are unquestionably largely made up of mucus, as Dr. Ouchterlony states.

I do not believe micro-organisms have any thing to do with the production of the disease, and I believe Dr. Ouchterlony is correct in stating that there are two forms of the affection, one neurotic, the other catarrhal in character. Wood and Fitz (1897) make the statement that there are probably two forms of the disease, as already spoken of.

As an offset to Dr. Bailey's deduction that the neurotic symptoms often precede for a long time in many cases any bowel symptoms, I would like to ask him if any serious trouble about the intestinal tract, lack of nutrition, etc., does not tend to the development of nervous symptoms.

Dr. Wm. Bailey: I simply want to go on record that we should not necessarily conclude that the condition is only neurotic because we know that neurotic symptoms develop in the course of it. This is the point I thought I made clear in my former remarks.

Fracture of the Femur in an Ataxic Subject. Dr. C. Skinner: I saw a case this morning which is of interest in some respects. The patient is a man who has locomotor ataxia; he has been sick about ten years, and last Tuesday, he tells me, he hurt his leg by falling off a commode. Upon examination I found that he has sustained a comminuted fracture of the lower third of the femur, and had no knowledge of it up to the time of my visit four days later. His leg was simply dangling from what he supposed was the joint; his family was helping him up and down with a broken leg, and at one point the bone nearly protruded through the skin. The leg had been broken since the previous Tuesday and had given him absolutely no pain. Degeneration of the bone had taken place and it was practically in a fragile condition; I told the family that because of the man's condition union would in all probability not take place.

Discussion. Dr. A. M. Vance: I have reported a case where a man had a fracture of the leg from accident and was not aware of it for twenty hours; the fracture occurred at the lower end of the femur in a man aged forty years. He was walking on the ice and slipped and fell, sustaining a fracture of the femur as stated; notwithstanding this he

walked several squares and boarded a street car and rode to his home, walked up a flight of stairs and lay down on a sofa and went to sleep. When he awakened at one or two o'clock the next morning and made an effort to turn over on the sofa, he found that his leg was fractured two or three inches above the knee.

Dr. W. O. Roberts: Some time ago I had a case where a man in a railroad accident received a fracture of both femurs with an injury of the spinal cord, which produced complete paralysis of both lower extremities. He lived for six weeks after the injury and never had any pain in his legs at all; never had any sensation whatever, and after his death I made a *post-mortem* examination, and there was not the slightest attempt at union of the fractures.

I do not believe there will be any union of the fracture in the case reported by Dr. Skinner.

JOHN MASON WILLIAMS, M.D., *Secretary.*

Reviews and Bibliography.

Essentials of Bacteriology. Being a concise and Systematic Introduction to the Study of Micro-organisms, for the use of students and practitioners. By M. V. BALL, M. D., Bacteriologist to St. Agnes' Hospital, Philadelphia. Third edition, revised, with eighty-one illustrations, some in colors, and five plates. 218 pp. 12mo. \$1.00. Philadelphia: W. B. Saunders. 1897.

This little volume is a thoroughly up-to-date compendium of bacteriology. The article on diphtheria has been subjected to a thorough revision, in order to embrace the latest knowledge relating to antitoxin in the treatment of this disease.

An article on "Bacteriologic Examination of the Organs and Cavities of the Human Body" has been added in the appendix. The early appearance of this the third edition is the best attestation of its excellence.

D. T. S.

Lectures on the Malarial Fevers. By WILLIAM SYDNEY THAYER, M. D., Associate Professor of Medicine in the Johns Hopkins University. New York: D. Appleton & Co. 1897.

For the two decades past malaria has been treated much as hunters store away their captures while they go on to seek other game. With specifics discovered for its treatment, the rule has been to fire a load of quinine into whatever spot it was supposed to lurk, when, if nothing else appeared, the doctor assumed that he had brought down malaria.

In the mean time, however, students have gone on illuminating the etiology and pathology of the disease, until now the time has come for the

medical public to appreciate the true pathology as developed from Laveran's discovery of the malarial parasite.

This book is well devised to supply the shortcomings of the profession in the various respects named. In its scientific and practical value it is one of the most important works that has recently appeared from the medical press.

D. T. S.

International Clinics. A quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otolology, and Dermatology. By teachers in the leading colleges of America and Europe. Edited by JUDSON DALAND, M. D., J. MITCHELL BRUCE, M. D., F. R. C. P., and DAVID W. FINDLAY, M. D., F. R. C. P. Volume III. Seventh Series. 360 pp. Philadelphia: J. B. Lippincott Company. 1897.

This volume of International Clinics presents the usual interesting selection of important themes treated by popular clinical teachers and writers.

The scope of the publication enables it to select important features in medical literature treated with an elaborateness and fullness of illustration not admissible in medical journals. To teachers especially it should be useful as indicating such improvements as they might add to their several methods.

D. T. S.

A Manual of Medical Jurisprudence. By ALFRED SWAYNE TAYLOR, M. D., F. R. S. Revised and edited by THOMAS STEVENSON, M. D., London. Twelfth American, edited with citations and additions, from the twelfth English edition. By CLARK BELL, Esq., LL. D. 832 pp.

When twelve editions of a work have been called for by the medical public it needs no further review. It may, however, be said that there are works on this subject more exhaustive, and for the expert more nearly indispensable. But Taylor's is the work for the student and for the physician who is desirous of obtaining a sound knowledge of the subject. It is one of the classic works, a well of undefiled English, as well as a great storehouse of useful facts. To the student as to the physician we would say, get Taylor first and then add as means and inclination enable you.

D. T. S.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Ninety-eighth Annual Session, held at Baltimore, Md., 1896. Also Semi-Annual Session held at Belair, Md., 1895, and Special Meeting in Baltimore, December 14, 1895. 144 pp. Baltimore: The Deutsch Printing Company.

Proceedings and Addresses at a Sanitary Convention held at Hanover, Michigan, June 3 and 4, 1897. Under the direction of a committee of the State Board of Health and a committee of the citizens of Hanover. 55 pp. Lansing: Robert Smith Printing Company. 1897.

Twelfth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Volume I, 546 pages; Volume II, 1194 pages. Clarence M. Busch, State Printer of Pennsylvania. 1897.

Proceedings and Addresses of the Third Annual Conference of the Health Officers in Michigan, July 16 and 17, 1896. Under the auspices of the State Board of Health. 138 pp. Robert Smith Publishing Company. 1896.

Twenty-Second Annual Report of the Secretary of the State Board of Health of the State of Michigan for the fiscal year ending June 30, 1894. 526 pp. Lansing: Robert Smith Publishing Co. 1896.

Twenty-Third Annual Report of the Secretary of the State Board of Health of the State of Michigan for the Fiscal Year ending June 30, 1895. Robert Smith Printing Company. 1896.

Transactions of the American Ophthalmological Society. Thirty-Second Annual Meeting. Volume VII, 757 pages, 1894; 757 pages, 1896. Hartford: Published by the Society. 1897.

Transactions of the Medical Society of the State of North Carolina. Forty-Third Annual Meeting. 148 pp. Wilmington: Le Gurin Bros. 1896.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

A New Medical Masonic Lodge; Cleanliness among the Barbers; The Prince of Wales' Hospital Fund; An Interesting Manuscript; The Frozen Meat Trade of the Port of London; The Evolution of Anesthesia; The Prevention of Enteric Fever; Free Supply of Antitoxin.

The medical profession has added another to the list of Masonic lodges, the founders of the Santa Maria Lodge, No. 2668, being brethren connected with St. Mary's Hospital. His Royal Highness Prince of Wales was elected the worshipful master, Mr. Edmund Owen, M. B., F. R. S., was installed as deputy.

Some of the medical men in Paris have been energetic lately on the subject of proper cleanliness among the barbers of the city. They assert that baldness is greatly due to the non-observance of hygienic principles in the hair-cutting saloon, combs, brushes, and general surroundings, all favoring disease of the hair, resulting in its falling off. The Hygienic Society, of Paris, have issued an earnest manifesto to the hair dressers, calling upon them to use nickel combs, antiseptic washes, and fresh antiseptic sawdust for each customer. It is said that the lax state of affairs which does not demand clean brushes and combs will be made a State question.

The amount collected by the Prince of Wales' Hospital Fund is far short of what the progenitors of the scheme contemplated, the anticipation

being that at least a million would have been collected, and up to the present not a quarter of the sum has been subscribed. It is thought by many that the hospital system, as a means of relief to the poor, is on its last legs. The idea being that there must be retrenchment and a cutting down of expenses till both ends meet rather than appealing to the public for further funds. The one thing wanted to do this is to relieve the poor only, and rigidly exclude those persons who can well afford to pay.

Dr. Berger, an Italian medical man, has published an interesting manuscript which has been found in the library of the Vatican. It consists of a set of prescriptions used in the treatment of the eye disease from which Michael Angelo suffered. The directions and advice of the various doctors under whose treatment he was have been preserved and recorded in the original manuscript.

The annual report of the medical officer of health to the port of London contains some remarks upon the extent of the frozen meat trade and on the inspection to which this form of food is subjected. It appears that there are one hundred and twenty-three vessels engaged in the London trade, the great majority of the carcasses coming from New Zealand, Australia, and the river Plata. While the vessels are discharging frequent visits are made to see if their cargoes are in good condition, and if any suspicious meat is met with each carcase is individually inspected. Some of the meat is sent away by rail, some is discharged into craft for conveyance to refrigerators up the river, and some is landed for storage up the docks. Dr. Collingridge says that no examination in the stores has been found to be either practicable or desirable, and at none of the meat stores in London is there any inspection of the meat on leaving.

The Society of Anesthetists have commemorated the Jubilee of Anesthetics by a conversazione at their rooms. Dr. Dudley Buxton commenced the proceedings with an address on the evolution of anesthesia. He spoke in the highest terms of the investigations of Snow, who he considered had contributed so much that has proved valuable and trustworthy to the knowledge of chloroform. Dr. Buxton was also eloquent upon the ingenuity of Clover, who so largely contributed to overcome the technical difficulties attending the use of the rival anesthetic, ether. The cause of death, when a lethal dose of chloroform was administered, he considered was due to respiratory paralysis, and insisted that skill and experience afforded greater safeguards against disaster than the use of any particular form of inhaler.

At the recent meeting of the Royal Medical and Chirurgical Society, during a discussion on the prevention of enteric fever, Dr. G. V. Poore gave some interesting details of forty-six instances, within the last thirty years, of contamination of public water supplies. These supplies had either been contaminated at the source, in their course, or at the point from which the water was supplied to the persons using it. Of the sources which had been found to be contaminated eight were streams, eleven wells, and three upland

gathering grounds. Of wells seven were deep wells in the chalk, which had been polluted through leakage from a sewer, by accidental defilement of an adit, by the drainage from the surface of an adjacent sewage farm, or by leakages from foul ponds and cess-pools. Dr. Poore considered that the most important cause of pollution at the traps was when they were left turned on and a vacuum was produced in the supply pipe by intermission of supply, so that foul gas or liquid was sucked back into the house pipe or main. Dr. Poore suggested that water pipes and sewer pipes should on no account run in close proximity; one set of pipes should enter at the front of a house, and the other leave by the back. With regard to the treatment of enteric stools, he thought that in country places they might safely be applied to the surface of well-tilled soil, and not be mixed with antiseptics or buried deeply, as feces could not be washed out of well-tilled humus by any amount of rain, and in such a position the bacilli were certainly destroyed, for in tillage they were exposed to air and sunshine, and in such a position disappeared in a few weeks.

Barbers' Hall had a very narrow escape from destruction during the recent large fire in the city of London. The hall contains the well-known picture by Holbein, painted on a massive oak panel, measuring six feet in height by ten feet three inches in width.

The London Metropolitan Asylums Board have resolved that a supply of antitoxin shall be placed in the hands of the medical officer of health under their control for free distribution to any general practitioner who may be called upon to attend and treat patients unable to obtain admission into the board's hospitals. The board have made arrangements for a supply of antitoxic serum from the laboratories of the Royal College of Physicians and Surgeons.

The London Roentgen Society announce that means have been found to determine with mathematical precision the exact depth of an object beneath the surface.

LONDON, November, 1897.

SALINE INJECTIONS AFTER FLOODING.—Amillet (*L'Obstetrique*) insists that after grave hemorrhage in pregnancy or labor a saline intravenous injection is the best method for encountering acute anemia. A one-per-cent solution of chloride of sodium is the only available mixture which has no evil influence on the corpuscles. At least 1,500 to 2,000 grams must be injected. In less serious cases two hundred grams can be injected under the skin; more than one dose may be required. Amillet recommends an intravenous saline injection or a subcutaneous injection before any obstetrical operation is performed on a woman exhausted by loss of blood. When the patient has clearly been revived by these means she must, in any case, be closely watched, as sometimes the good effects do not last. The injections must be repeated if necessary till all danger has passed away. *British Medical Journal.*

Abstracts and Selections.

SULPHATE OF DUBOISIN.—J. H. Skee (*Journal of Mental Science*) has used sulphate of duboisin for some time, administering it hypodermically and by the mouth, generally in doses varying from gr. $\frac{1}{10}$ to gr. $\frac{1}{2}$, though he has given as much as gr. $\frac{1}{2}$ at one time. The hypodermic method is the surer and safer, and is followed by fewer bad consequences. The following is a summary of the effects of the drug in the author's experience: Within fifteen to thirty minutes of the hypodermic administration of a single dose aggravation occurs, the pupils become dilated, and the face flushed. Cardiac action becomes more rapid, accompanied by a full and soft pulse. Speech becomes thick, drawling, and slow, and, if the dose be large, inarticulate. The mouth and throat are dry, and the gait ataxic, the general appearance of the patient much resembling that characteristic of alcoholic intoxication. The excitement, rapidly passing off, is followed by drowsiness and a feeling of calm, which is followed by sleep, varying in duration from three to ten hours. There is no recurrence of excitement when the patients are roused from sleep; the only bad effects are dryness of the throat, and in some cases slight impairment of vision and occasional slight headache. There is no impairment of appetite. This is the general action of a single dose of the drug, except in a certain class of cases to be mentioned later. If given internally there is impairment of the appetite, with a tendency to faintness and vomiting. Continuous administration is not successful; there is quiescence while the patient is under the influence of the drug. There is weak pulse and tendency to faintness. Marked ataxia is also present. Hallucinations of sight and hearing occurred in some of the cases so treated. Loss of weight sets in rapidly, but is easily recovered from. Duboisin was used in all cases in which marked excitement was a symptom. In acute mania its use was not followed by any beneficial results. Single doses, though producing quiet for a time, seemed to cause more excitement after. If continuously administered, it induced rest and quietness, but a rapid loss of weight set in, which necessitated the suspension of the drug. In delusional mania it was used only if required for outbursts of excitement; its action was entirely satisfactory. Excitement which would ordinarily have lasted weeks was cut short. Other sedatives did not have this effect. In chronic mania its occasional use was followed by satisfactory results. In general paralysis duboisin was used during violent excitement, both occasionally and continuously, with satisfactory results. On one occasion a congestive seizure followed the exhibition of gr. $\frac{1}{2}$ of the drug. In epilepsy duboisin is not of much use. Its action is uncertain, some cases of epileptic excitement being relieved,

while in others the excitement was increased. It does not appear to have any action in altering the frequency of the fits. In melancholia the worst possible results were obtained. In no single case was there the least relief, while in most the excitement was increased. There was a tendency to syncope, and in some cases hallucinations of sight and hearing were observed. In dementia, used occasionally, it gave satisfactory results, insuring quietness and rest at night. Dangers: If carefully used these are few. Cases of valvular heart disease have received the drug without any bad results. Cardiac failure occurs when it is continuously administered, especially if given internally, and is due to too large a dose being used. One case (acute mania) in which the drug was pushed suffered from a slight convulsive seizure, characterized by twitchings of the muscles of the face and limbs. Increased excitement occurs in some cases not tolerant of the drug. Indications for and against its use: Cases of excitement due to hallucinations and delusions give excellent results. In all forms of chronic insanity with excitement, and in occasional cases of epilepsy, it may be used as a sedative with good results. The author concludes that duboisin should be used only in physically healthy persons. It should never be used, or only very carefully, in debilitated persons. It is not suited to acute mania, and is distinctly injurious in melancholia. Duboisin, Skeen thinks, is preferable to hyoscine or hyoscyamine, as the quiescent state established by its use is of longer duration, and there is less prostration during or after its use than is the case with those drugs. The after-effects are not so marked, and few serious cases occur. Its action in some of the worst cases is described by the patients as soothing rather than prostrating, and it does not interfere with the recovery of those treated with it.—*British Medical Journal*.

THE SERUM DIAGNOSIS OF TYPHOID.—Widal and Sicard (*Ann. de l'Institut. Pasteur*, 1897), in a lengthy article review the progress of our knowledge on this subject, and give their own conclusions based upon the study of 163 cases. From only one of these was the reaction absent throughout; this was a patient, aged forty, who was admitted on about the twelfth day of the disease, and whose temperature remained high for twelve days subsequently. Eleven days later a relapse came on, and lasted fourteen days; during both attack and relapse puncture of the spleen yielded pure cultures of the typhoid bacillus, which were readily agglutinated by the serums of other typhoid patients. The serum from this case, however, never gave the agglutinating reaction. This disproves Gruber's assertion that the reaction is one of immunity, since the patient recovered from both attacks without its manifestation. The reaction has been found as early as the second day (by the authors not before the fifth) and as late as twenty-six years after convalescence; the date of its appearance bears no relation to the severity of the attack. The authors find that on dialyzing serum or milk the agglutinating property does not appear in the dialysate

till the proteid matters begin to come through; these, however, may commence to appear before the property develops, and as the agglutinating substance can be detected in non-albuminous urine its true nature is still uncertain. A large part of the article is devoted to the study of the measurement of the agglutinating power of typhoid serums. The maximum observed was 1 in 11,000, that is the serum diluted to this extent still gave the reaction; this occurred on the eighth day in a young man aged twenty-two, the subject of an attack of medium severity, convalescence from which was rapid and complete. This patient had been unwell for about twelve days before he came under observation, so that the maximum was probably reached on somewhere near the twentieth day of the disease. The curve of agglutinative power varied greatly and unaccountably in many cases. Thus in two which ended fatally the power of agglutination was observed to fall greatly during the few days before death, in two others it fell less, while in a fifth it was the same on the day of death as on that of entry into the hospital. In patients who recovered the variations were no less remarkable. A sudden and considerable rise either at the beginning of defervescence or in the last days of the disease was by no means uncommon, while in one instance the agglutinating power sank toward the middle of the disease, rose again during its decline, sank anew at the beginning of defervescence, and finally rose in the second week of defervescence. Even daily variations were frequently met with, and the differences in similar cases could only be explained as idiosyncratic. With regard to the extent to which the serum should be diluted for diagnostic purposes the authors recommend an invariable first trial with a dilution of 1 in 10 followed by as many successively higher dilutions as possible, till the limit of action is reached. If but a small quantity of serum is available the test should always be tried with dilutions of 1 in 10 and 1 in 50; if the agglutinative property is not found with the latter strength many bacteriologists while regarding the case as suspicious hesitate to declare it to be certainly typhoid. The authors' general conclusions may be thus summarized: The agglutinating reaction is one belonging to the period of infection. It can usually be detected in typhoid patients during the first days of the disease, and though sometimes delayed is but exceptionally absent. It is not a vital reaction on the part of the agglomerated microbes, and is subject to important individual variations. From the practical point of view the authors state that a negative reaction obtained with the serum of a suspected patient furnishes a probability against the diagnosis of typhoid; but this is only a probability, especially if the examination is made during the first days of the disease. In such cases the examination should be repeated on successive days. The probability is the greater the later the examination is made during the disease. A positive reaction obtained according to the rules of measurement laid down by them (the serum being diluted never less than ten times) can be considered a pathognomonic sign of typhoid fever.—*Ibid.*

INTESTINAL OBSTRUCTION BY BILIARY CALCULI.—Raymond has made series of observations (*These de Lyon*) on this form of intestinal obstruction. The writer distinguishes two forms, rapid and slow. The first does not differ from any other form of acute obstruction, and is impossible to diagnose. The second presents certain important peculiarities which will often point to the cause of the obstruction. The calculus being already in the intestine for some time, there is no special hepatic symptom at the onset of occlusion, which thus comes on insidiously by constipation. Secondly, the patient does not take to his bed, and even continues his ordinary vocations for perhaps a week, and may even walk to hospital. So soon as the lower part of the intestine is empty, the constipation becomes absolute. Subsequently there comes on a feeling of *malaise* and weight, accompanied by colic, loss of appetite, nausea, and prostration, and lastly the classical symptoms of occlusion. The pain is not at first very severe, appearing rather after taking food and without any exact location; subsequently vomiting, which does not become fecaloid for some little time, appears; meteorism is variable, the belly remaining almost always soft, though in some cases a tumor may be felt, the position of which is very variable. It may be as late as the twentieth to the twenty-fifth day that the symptoms become grave, with typical abdominal facies and suppression of urine. One of the chief characters is remission. So long as the calculus is kept stationary by intestinal spasm the symptoms continue, but when it is allowed to move there is a sudden change for the better in all the symptoms, which are again repeated should the calculus be again gripped. Thus, some cases may present a whole series of attacks of intestinal obstruction, ending favorably should the calculus be expelled *per anum*. The previous history of the case, when obtainable, is of course extremely important, as there is almost always some indication of biliary colic during the passage of the calculus into the intestine, but the author points out that a case of intestinal obstruction where the symptoms cease, to reappear in forty-eight hours to three days, where the vomiting, after having been fecaloid, ceases to be so, is not likely to be other than due to the presence of biliary calculus.—*Ibid.*

ACCIDENTAL HEMORRHAGE.—Gottschalk (*Centralbl. f. Gynak.*) related an instructive case of partial detachment of the placenta at the February meeting of the Berlin Obstetrical Society. The patient was a primipara aged twenty-eight, and suffered from the nephritis of pregnancy. Labor came on at the end of the eighth month. The presentation was right occipito-anterior, with prolapse of an arm. The os having attained the diameter of a florin, the membranes were ruptured in order that combined version might be undertaken. At once thick clots and liquor amnii like pure fluid blood escaped; the membranes remained attached to the lower segment of the uterus. The fingers passed into the uterus detected the lower border of the placenta detached from the membranes. Then it was

found that the entire placenta was separate excepting the uppermost part, which was still attached to the uterine wall high up to the left. The amniotic cavity was full of coagula, and there were big clots underneath the placenta. After careful detachment of the upper part of the placenta, the foot was seized and the child delivered with great difficulty, as the uterine contractions were very strong, though the patient was deeply under chloroform; the placenta followed. The child died early in labor; the mother recovered rapidly. Gottschalk believed that hemorrhage into the amniotic cavity was due to the clot behind the detached placenta being forced through the damaged placental walls by the uterine contractions early in labor when the membranes were still firmly attached to the lower segment. Winter was of an opposite opinion; he contended that, as the clots and blood came away when the membranes were ruptured, it showed that the blood came away from under the detached placenta directly pressure was removed and the membranes partly separated below. He had seen that phenomenon repeatedly during version when there was no evidence of rupture of the placenta by the pressure of large clots behind it during a pain. *Ibid.*

FOLLICULAR TONSILLITIS (Levy, Medical and Surgical Reporter):

R Olei creosoti, gtt. viij;
 Tinct. myrrhæ, } āā 3ij;
 Glycerini, }
 Aq., ad 3viii.

Sig: Use as a gargle every two hours.

ITCHING OF URTICARIA (*Provence Médicale*):

R Distilled water, 450 parts;
 Cherry-laurel water, 50 parts;
 Chloral hydrate, 5 parts;
 Cocaine hydrochlorate, 3 parts.

SCARLATINA (J. Lewis Smith):

R Tinct. ferri chloridi, 3ij;
 Potassii chloratis, 3i.-ij;
 Syr. simplicis, 3iv.

M. Sig: A teaspoonful every hour or two to a child of four or five years.

SUPERFICIAL CANCER WITHOUT GANGLIONIC INVOLVEMENT (Czerny and Trunecek, *La Sem. Med.*, May 1st):

R Acidi arseniosi, 1 gm;
 Alcohol, ethyl, } āā 75 gm.
 Aq. dest., }

Paint surface daily. As the eschar grows thicker increase the strength to 1 in 40.

MALIGNANT PUSTULE (Kedroff):

R Hydrarg. bicianid, i;
 Aq. dest., 100;
 Cocainæ salicylat, q. s.

M. Sig: Inject from half to one syringe-ful subcutaneously and cover the area with sublimate compresses.

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AFTER DEATH.

"The four boards of the coffin lid
Heard all the dead man did."

The hideous topic of sepulchral happenings and the horror thereby engendered in people of morbid imagination is kept alive by such discoveries as the following. The Berlin correspondent of the Medical News (4th inst.) writes:

An account of one of the rare cases of spontaneous delivery of a child some days after the death of the mother appeared in the last number of the *Vierteljahrschrift für Gerichtliche Medicin*, and has given rise to considerable comment. The case is very well authenticated, as the body passed through the hands of medical and legal public officials before burial, so that the details are a matter of legal evidence.

The woman had been found dead in the river under circumstances which seemed to point to suicide. Careful examination of the body was made to be sure that there was no evidence of injury previous to the immersion, and it was noted that she was in an advanced stage of pregnancy. Ten days later circumstances came to light which seemed to point to foul play, and the body was exhumed for further and detailed examination.

A tumor was found projecting from the vulva which had not existed at the time when she was placed in the coffin. This was found to consist of the completely inverted uterus and vagina. A little below it, lying upon the lower limbs, was a fetus 36 cm. in length.

Dr. Bleich, who reported the case, discussed the possible causes of the delivery, and considered that the usual causes do not afford a sufficient explanation. Neither the development of gas within the abdomen and the consequent pressure exerted upon the fundus uteri nor tonic contraction of the uterus due to *post-mortem* rigidity are sufficient explanation of this remarkable phenomenon; as far as he is concerned, neither nor both of them can account for it, if one is to consider the uterus as being in its ordinary *post-mortem* condition. He considered it probable that during the death agony there had been active contractions of the uterus which had almost accomplished the extrusion of the child, and then that the pressure of putrefactive gases in the abdomen and the further tonic contraction of the uterus were sufficient to have completed the process of delivery.

In any case the occurrence of an authentic instance of delivery after burial, where there is not the slightest chance for doubt as to the mother's death before burial, ought to prove a great source of consolation to those who have found in the published reports of such cases some confirmation of their fears as to the dread possibility of being buried alive.

There can be no reasonable doubt that the woman in the above case was dead when she was buried; nor in the many cases reported of corpses having partially turned over, or having made other movements suggestive of life, can it be said that the movements were not *post-mortem*.

Still the horror of being buried alive exists in many sane and reasonable minds, and should be treated by the physician with tenderness and reasonable consideration.

Such persons should be assured that the scientific tests of extinct vitality are many and conclusive, and that any person may direct, in case of death from natural causes, that these tests shall be applied to his corpse before burial. And finally the question may be put beyond any possible contingency by the process of embalming, or section of the jugulars and carotids.

Notes and Queries.

THE MARAGLIANO SERUM.—Hager, in a preliminary communication (*Munch. med. Woch.*, August 3, 1897), relates his clinical experience of this serum in the treatment of tuberculosis. A great advantage of the serum treatment over tuberculin is that it does no harm even in advanced cases of tuberculosis. The reports on the value of this serum have been generally favorable. The author would confirm the statement of Maragliano, that the serum may have a favorable action on all the specific symptoms of tuberculosis. The serum does not appear to exercise any effect on the tubercle bacillus itself, but neutralizes the products of this micro-organism. Among cases of advanced phthisis treated within a year, and mostly confined to bed, only one had succumbed to the disease. The author then discusses the action of the serum on the lupus lesion. It can be painted on the patch, and yet produce its beneficial results. It produces a swelling of the lupus tissues, and in a few days retrogressive changes are present. The neighboring lymphatic glands become swollen. Three or four paintings usually suffice if the lesion is not too extensive. The cicatricial changes develop themselves speedily under this treatment. A simultaneous injection of the serum hastens the recovery. It is quite possible that Maragliano's method of obtaining the serum may be improved upon, and thus a more efficient serum produced. The author concludes by stating that those trying the preparation as obtained from Merck will not fail to find that this treatment constitutes an advance.—*British Medical Journal*.

OVERLYING CHILD.—The evidence in the case against a certain Mary Egan was to the effect that, having a male infant about eleven months old, on the 13th of February, after having been drinking, and being somewhat under the influence of drink, she took the child into bed with her, and in her drunken or semi-drunken sleep lay on the child, and the child died from suffocation. Mr. Justice Hodges, of the Supreme Court of Australia, before whom the trial took place, told the jury to convict the prisoner if they believed the evidence. The jury having convicted her, the learned judge reserved for the consideration of the full court the question of whether his direction was correct. Its decision is that the proposition involved was altogether too broad, and that the circumstances disclosed that the charge of manslaughter was not supported. Chief Justice Madden, delivering the opinion, goes on to say, if a woman resolved to do away with her child, and having become somewhat drunk, took it to bed with her with the knowledge that she would probably sleep heavily and overlie the child, doing this apparently innocently, but at the same time with the intent to

destroy her child, that would be murder. If, being in that state, she, with the knowledge that she might overlie the child, and against the remonstrances of her friends, negligently took the child to bed with her and overlay it, that would be manslaughter. But here the evidence was that the woman had been drinking and was somewhat under the influence of drink, and having taken her child to bed with her, unhappily overlay it. That was not sufficient to support a charge of manslaughter.—*The Journal of the American Medical Association.*

THE PECULIAR PEOPLE.—It is very satisfactory to find that the Treasury has seen its way to prosecute in certain cases recently brought before the police magistrates, in which members of the sect spoken of as the Peculiar People have been charged with causing the death of their children by neglecting to provide them with proper medical aid. As the prisoners in question were committed for trial to the Central Criminal Court, it would obviously be improper to say more on the subject than to express a hope that no technical difficulties will intervene to prevent a definite decision being arrived at as to how far a person who is able to obtain medical attendance for his child and fails to do so is to be held guilty of such criminal neglect as to bring himself within the law. There is, however, one aspect of the question with which we may presume the courts will not trouble themselves and as to which we may therefore say a word, namely, the assertion so often and so glibly made that prosecutions such as this savor of religious persecution. The importance of this point lies in the fact that if it were once admitted that people could escape from the ordinary law of the land under the plea of some religious scruple or conviction, all proceedings under the Public Health Acts would become of no avail. Nothing could be simpler than to incorporate among the tenets of various sects one in favor of faith in Providence instead of trust in the sanitary inspector; and if this were once to be admitted it is clear that sanitary law would become a by-word.—*British Medical Journal.*

A TWO-DOLLAR FEE FOR NIGHT MEDICAL SERVICE VISITS AT PARIS. A disagreement has recently arisen between the prefect of police and the surgeons attached to the night medical service of the sixteenth arrondissement with reference to the payment of fees for which police are liable, the services having been rendered at the request of their officers. By a new regulation the prefecture bases its calculations upon the amount allotted for fees to each quarter, an average for three years being taken, and every three months the whole sum should be divided among those to whom it may be owing. In the Passy quarter, however, the sanitary conditions for the three months, January, February, and March, were practically favorable and accordingly the fee worked out at about \$4.75 for each visit. The administration considered this too high, and one medical man sent in his resignation. With a view of healing the breach the prefecture proposed as a way

out of the difficulty that visits made during the first three months of the year in the Passy quarter should be paid for at the rate of ten francs for every night call.—*The Journal of the American Medical Association.*

DERMATOL AND ITS INTERNAL ADMINISTRATION.—Dermatol is, as is now well known, a basic oxide of bismuth, and has been employed with considerable success as a substitute for iodoform in the treatment of wounds, having both the desiccating power of bismuth and the hemostatic and astringent characteristics of gallic acid. Its employment as a drug for internal administration up to the present has not been at all general, though Colasanti and Dutto have prescribed it with advantage in various cases of intestinal catarrh and Werther has found it useful in chronic intestinal catarrh. Dr. Perlmutter has recently published a paper in the *Munchener Medicinische Wochenschrift* on its employment in gastric ulcer and diarrhea, his observations being made on an extended series of cases and being inspired by Professor Moritz, who recommended it to his notice. In diarrhea in phthisical subjects and in acute and chronic enteritis he found it most valuable, all cases of this kind benefiting by its use, and the result being by no means only of a transient character. The drug was given in doses of from eight to thirty grains in water twice a day. It is not poisonous, and produces no by-effects except a tendency to constipation, which can be readily combated by means of glycerine enemata. In gastric ulcer, too, it was very useful, especially in acute cases where patients could be kept at rest and properly dieted and made to lie on the affected side after taking the dermatol so that it might come into contact with the lesion itself. The doses given were eight grains at the beginning, gradually increasing to thirty grains twice a day. Of course, when bismuth is being given, the stools will be dark, and care must be taken not to mistake them for those colored by blood.—*Lancet.*

CERVICAL ADENOPHLEGMON WITH DEEP DIFFUSE CELLULITIS.—Gustavino Federica (*Pamphlet*, Milan), records a case of adenophlegmon of the neck in a man, aged forty-four, and suffering from syphilis. There was danger of suffocation, and the author operated, making an incision along a line from the mastoid process to a point one finger's-breadth external to the right sterno-clavicular joint; the incision began a little below the angle of the jaw, and was about 12 c. cm. in length. The large cavity was packed with sublimate gauze, and the recovery was good. The author believes that the diffusion of an acute deep phlegmon of the lateral region of the neck depends on the septic power of the infecting element, and on the greater or less resistance of the tissues more than on the barrier interposed by the aponeurotic strata of the part. If the inflammation continue to extend in the cellular space an immediate deep and extended incision followed by packing with sublimate gauze constitutes the best curative means both for removing the danger of suffocation and for effecting a rapid and complete cure.—*British Medical Journal.*

HYPODERMIC INJECTIONS IN EXTENSIVE BURNS.—Professor Tommasoli, of Palermo, recommends large hypodermic injections of artificial serum—that is, water containing 0.6 of common salt—in case of extensive burns, with the object of washing away the toxins which accumulate in consequence of the suppression of perspiration by the destruction of the sudorific glands. In one very severe case, where this treatment was only commenced after diarrhea and delirium had set in—although the case proved fatal—a distinct improvement was observed after each injection. In another, where, though the burnt surface was even more extensive, the treatment was commenced almost immediately, recovery took place. Here two hundred and fifty grams were injected at first, the quantity being increased daily until the fifth injection, when five hundred grams were given. This quantity was continued daily for nineteen days. Of course the wounds were dressed antiseptically.—*Lancet*.

A VESICANT ACARUS.—Meguin (*Bulletin de l' Acad. de Med.*) dwells on the remarkable disease observed in China among the poor, who eat a kind of purslane or arache (*atriplex*). The skin on exposed parts becomes edematous and itches severely. The symptom has been attributed to an acarus which is found on this kind of atriplex. But the parasite has not been actually found in any patient. Meguin, however, believes that the theory about the Chinese disease is correct, for in Mauritius there is an acarus known as *holothyrsus coccinella* (Gervais), which abounds in moss, in the cold and damp highlands of the island. Poultry can not be reared in those districts as the acarus causes fatal pharyngitis. Native children suffer in the same manner. Some specimens of *holothyrsus* were sent to Meguin. They were all dead. He fixed them by strapping to his forearm. In a few hours they set up severe irritation, edema, and prurigo. The live *holothyrsus* must be a powerful irritant to mucous membranes. It measures under one fifth of an inch in length.—*British Medical Journal*.

MIDWIVES.—In regard to the failure of midwives to report their cases, while undoubtedly a large proportion of natural births are never reported, there can be no question that this is the case with a still larger proportion of still-births. This is clearly shown by the statistics of the Board of Health. Thus, in a given period, 24,134 natural births were reported by physicians, and 22,770 by midwives. Yet in the same period, while 2,262 still-births were reported by physicians, only 1,034 were reported by midwives. The incompetence of the midwives is illustrated by the fact that large numbers of women die in New York from the occurrence of abnormal and unusual circumstances attending childbirth. In a large proportion of these the conditions are such that no ignorant attendant can foresee the danger, and there can be little doubt that many of these lives could be saved if midwives were compelled to possess an adequate knowledge of obstetrics.—*Boston Medical and Surgical Journal*.

THE PHYSICAL EFFECTS OF MUSIC.—Experiments on the influence of music upon respiration, recorded by MM. A. Binet and I. Courtier in the *Année Psychologique* for 1897, indicate that musical sounds, chords, and music in general, as a sensorial excitation independent of all suggested feelings, provoke acceleration of respiration, increasing as the movement is more lively, without disturbing the regularity or augmenting its amplitude. The major mode is more exciting than the minor. The heart is similarly affected. The distinction between sad or solemn and lively music appears to be for the most part wholly theoretical, and hardly squares with the complexity of the musical emotions produced by the melodies with the infinite shadings suggested by the ideas of the libretto. The authors, however, infer from their researches that the acceleration of the heart and of the respiration was not so marked during the hearing of sad pieces as in those in which joy and high excitation of musical emotions prevail.—*Appleton's Science Monthly*.

NEW MEDICAL JOURNAL.—In January, 1898, the Philadelphia Medical Publishing Company, incorporated under the laws of Pennsylvania, will begin the publication of a weekly medical journal, to be called the Philadelphia Medical Journal. The company has a capital of \$30,000, in shares of \$10 par value, full paid and non-assessable. The management of the company is intrusted to a board of trustees, in which are representatives of leading medical schools. The editorial management has been intrusted to Dr. George M. Gould. The price of subscription is \$3 per annum.—*Journal of the American Medical Association*.

GRAVES' DISEASE.—A. Saenger (*Munch. Med. Woch.*, April 6, 1897,) remarks that the propriety of operating upon the thyroid in Graves' disease as well as the absence of danger attending such operation require confirmation. He refers to the statistics of recorded cases treated by operation, and draws attention to the not very few deaths which have been known to follow immediately. He reports a case in a woman, aged twenty-eight, in which the right lobe of the thyroid gland was removed for Graves' disease. At first the palpitation was a little improved, but the other symptoms remained stationary. A little later all the symptoms were aggravated, and the condition of the patient was worse after than before the operation. *British Medical Journal*.

THE HEDGE DOCTOR.—A "hedge doctor," a kind of quack in Ireland, was being examined at an inquest on his treatment of a patient who had died. "I gave him ipecacuanha," he said. "You might just as well have given him the aurora borealis," said the coroner. "Indade, yer honor, and that's just what I should have given him next, if he hadn't died."—*St. Thomas' Hospital Gazette*.

Special Notices.

A. O. STIMPSON, M. D., C. M., Thompson, Pa., says: I have used and prescribed Celerina as a nervous sedative in a sufficient number of cases to test its medical virtues, and by experience I find that it is by far the most effective anodyne compound that is made. It is especially adapted to such cases that will not tolerate opiates, especially in neurasthenia and hysteric convulsions. I have also used it as a calmative in several cases of insomnia brought on by over indulgence in the use of alcoholic stimulants. I have often combined it with Peacock's Bromides very effectually. Miss A. C., a young lady, inheriting an extremely nervous temperament from her mother, was treated by me three months ago for amenorrhea and chlorosis. Preparations of iron were prescribed for her with decided benefit, as a constitutional treatment, but she could get no rest at night, only when completely exhausted. Opiates of various kinds proved more of an excitant remedy than calmative. By the frequent and repeated use of bromides of potash, soda, and ammonia, she would obtain rest when her stomach would tolerate the remedies, but Celerina proved to be the *sine qua non* in her case; the second dose scarcely ever failing to procure a protracted and refreshing sleep. Case 2: Mr. F. L., a professional house painter, occasionally afflicted with colica pictonum, was immediately relieved of pain and trembling by repeated doses of Celerina given in milk. Case 3: Mrs. J. G., an aged lady, suffering from hemiplegia, attended with annoying formication in palsied limbs, was relieved of these disagreeable symptoms and of insomnia by the use of Celerina. Opiates of any kind failed to have any beneficial effect, and the bromides and preparations of valerian disagreed with her stomach. Case 4: Mr. S. S., an habitual toper, had had no sleep for three nights in succession, where the stomach was in such a condition that it refused to tolerate alcoholic stimulants in any shape, was speedily relieved by the use of Celerina. Case 5: A. C., a young child, two years old, suffering from hydrocephalus, was greatly benefited by the use of Celerina as a nerve sedative, and is in a fair way to gain unlooked-for health.

A VITAL QUESTION.—In a recent exhaustive article on the alarming question of food adulteration, The Medical Progress says: "If food that should be pure, especially when it is required for the sick, is thus adulterated, how are we to expect the recovery of our patients? The best way out of the dilemma is for the physician to insist that his patients shall have only such products as are prescribed and recommended to him. There is one article of diet that can be relied on whenever a nutriment is needed for the invalid, and it is the Imperial Granum Food, a wheat preparation of absolute purity, that is especially beneficial in all gastric and enteric troubles."

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